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ORIGINAL ARTICLES.

REPORT OF THE COMMITTEE ON PRACTICAL MEDICINE AND EPIDEMICS, OF THE ILLINOIS STATE MEDICAL SOCIETY FOR 1882-3.

BY N. S. DAVIS, CHAIRMAN OF THE COMMITTEE; READ AT THE MEETING IN PEORIA, MAY 15, 1883.

[From Advance Sheets of the Transactions of the Illinois State Medical Society.]

The By-laws of this Society make it the duty of the Standing Committee on Practical Medicine to report annually concerning such improvements as may have been made during the year in the management of individual diseases, and on the prevalence and special character of epidemics in all parts of this State.

Improvements in the management of any given disease may arise, either from a better knowledge of its causes, a more accurate understanding of its special pathology and tendencies, a more perfect comprehension of the action of remedies, and from direct clinical experience or observation at the bedside of the sick. By a full knowledge of the causes capable of producing a disease, the physician is often able to direct such remedies, or adopt such hygienic measures, as will neutralize or suspend their further operation, very much to the relief of his patient.

The more exact is our knowledge of the morbid processes constituting a disease, and of the tendency of those processes in developing the changes which we designate as the stages of the disease, and in secondarily disturbing other important functions, the more accurately and effectually can the physician select and apply his remedial agents for arresting or modifying those processes. In like manner, every addition to his knowledge of the action of remedies in the human system enables him to adjust their administration to the actual indications presented in the different stages of disease with more precision and effect.

And yet, when speaking of improvement in the treatment of diseases, we are quite prone to think of such items, only, as the discovery of some new remedy; some new and important application of an old one, or the development of some new methods in hygienic or other management.

It is obvious, however, that no adequate idea can be had of the real progress made in the management of disease, without taking the very comprehensive view just indicated. And in looking for evidences of improvement in the department of practical medicine during the preceding year (1882), I shall include the subjects of ætiology and special pathology, as well as that of the direct treatment of disease. During the past and several preceding years, investigations in the field of ætiology, or the causes of disease, have been pushed with great activity, partly on account of their bearing on the sanitary interests and regulations of communities and nations, and partly from the intrinsic scientific interest the subject creates in the minds of the investigators themselves. The active investigations in this field have been chiefly in two directions, namely—the use of the microscope in studying the blood, the structures, the secretions, deposits, growths, and all other morbid products, for the purpose of discovering any organic germs that may exist in them, and, if possible, of determining their causative relations to the diseases with which they are found associated; and a more extended and systematic study of meteorological and topographical conditions in their relations to the prevalence of diseases. Researches in the first direction, with the highest magnifying powers, aided by all the devices that modern science can afford, and prosecuted by a large number of skillful investigators, have resulted in the discovery of some form of bacterial development in the blood and tissues of many acute general diseases, and in almost every form of morbid product thus far subjected to examination. With that tendency to hasten generalization, or the drawing of conclusions from too limited a number of established facts—characteristic of our profession—each new germ discovered has been regarded as *the cause* of whatever disease or morbid product it was found associated with, until "*germ theories*" of disease, and "germicide remedies," have come to occupy the most prominent place in the medical literature of the present time; and men, qualified for the task, could confer no greater benefit upon our profession, and, through it, upon the people of all classes, than to subject the whole field of what may be styled antiseptic surgery, germ ætiology, with germicide therapeutics, and antiseptic sanitation, to an impartial and rigidly logical investigation, by which really *established facts* should be separated from partial or incomplete observations; the true relations of cause and effect maintained, as distinguished from mere coincidences; and the special additional investigations required to supply the facts or data needed to render much that has already been done available for the deduction of conclusions of either scientific or practical value.

It is not within the province of your committee, however, to attempt such a task, but simply to call your attention to such developments in the department of ætiology, during the past year, as have a practical bearing on the treatment of disease. Perhaps the most important of these developments, and that which has occupied much of the attention of skilled microscopists, as well as the profession at large, during the past year, is that relating to the *bacillus tuberculosis*, first announced by Koch as the the special microphite, or germ, peculiar to tubercular disease. With much care and patient observation Koch demonstrated the existence of this particular bacillus, or germ, in the tubercular masses deposited in the lungs and in the sputa of phthisical patients; and then by cultivating or propagating the bacilli, and using them to inoculate small animals, found such inoculations to be followed by the development of tubercular disease in a large proportion of the inoculated animals. So far as relates to the existence of the bacilli in the tuberculous deposits and in the sputa of patients affected with pulmonary tuberculosis, the observations of Koch have been fully confirmed by other skilled observers, both in this country and in Europe. But the results obtained from attempts to propagate the germ, and demonstrate its causative or ætiological relations, have been so various and contradictory as to leave this part of the investigation incomplete. By some it is claimed that the bacilli of Koch have been found only in such pulmonary tubercles as were exposed to the inhaled atmosphere and in the sputa. But Dr. Belfield, of Chicago, claims to have found them in tubercular deposits from mesenteric glands; and Dr. H. Gradle, of the same city, in a paper to the Chicago Medical Society recently, claimed the ability to demonstrate their presence in all varieties of tubercle, so certainly as to constitute the most reliable means of establishing an early and reliable diagnosis. Such claims, however, cannot be received until they have been confirmed by a much greater number of accurate observations. The discovery of bacilli in the tubercular masses and sputa of tuburcular subjects has been construed as affording positive evidence that phthisis is an infectuous disease, directly dependent upon these organic germs as its efficient cause, and capable of being propagated from one individual to another through their agency.

The very important practical bearing of such inferences is apparent to all of you. If we assent to the inference that tubercular consumption is an infectuous disease, and that the specific infection, in the form of bacilli, exists in the sputa and breath of patients affected by it, the practical questions concerning the *isolation* of all such patients, and their treatment mainly by antiseptic and germicide remedies, at once assume an importance superior to all others. But the mere fact that the bacilli, or any other bacterial forms, are present in the substance of tubercle and in the sputa of tuberculous patients, justifies no such inference. Neither have the results of cultivation and inoculation with these germs been sufficiently uniform or successful to afford any corroborative evidence in favor of their infectious properties and ætiological importance. On the contrary the frequent failure of such experiments, and the close resemblance of Koch's bacillus tuberculosis to the bacillus cadaveris, found abundantly in the tissues of every cadaver left in a moderately warm atmosphere twenty-four hour after the death, renders it highly probable that both are mere accompaniments of certain deteriorative changes in organic matter, and possessing no causative relations whatever. This view is further sustained by two well-known and long-established clinical facts: First, that neither physicians nor nurses who daily examine and wait upon consumptive patients, either in the wards of hospitals or in private dwellings, afford any evidence of becoming infected, or of yielding any higher ratio of cases or deaths from the disease, than other classes in the community not so exposed to contact with the sick; second, that no disease in the long catalogue of human ailments affords stronger evidence of capacity for hereditary transmission than tuberculosis. There is, therefore, nothing in the present status of investigations on this subject that will either justify the isolation or quarantining of the victim of tuberculosis, the prompt disinfection of his sputa, or the expectation of curing him by the use of germicides.

These remarks apply equally well to nearly all the other diseases with which some variety of bacterial germ has been found associated. And yet a very large proportion of the ætiological, pathological and therapeutical novelties and claimed advancements found in the current medical literature, relate to the discovery of germs in some new relation or of some new application of the supposed germicide remedies. Even the very recent and popular *anti-pyretic* theories and remedies are rapidly giving place to so-called specific causes and remedies; and we are in danger of soon having a large proportion of acute diseases treated with as extravagant doses of the preparations of mercury, iodine, carbolic acid, and other active medicinal agents, under the idea of their germicide power or capacity to destroy supposed specific organic germs in the living body, as they have recently been of quinine, digitalis, salicylic acid and cold baths, for reducing temperature. Those who, like your reporter, have been in practice nearly half a century, are as familiar with the use (and it might be added abuse) of mercurials in the treatment of all forms of disease, both as alterants and evacuants, as they were with the modern *anti-pyretic* doses of quinine, as antiperiodic and sedative in the treatment of general fevers. And it is fair to presume that the effects of all these remedies will be the same when introduced into the human system, whether given under the ancient ideas of simple alteratives, evacuants and sedatives or the the modern doctrines of antipyretics, germicides and specifics.

Before we go further, however, it may be well to inquire what proof there is that any remedies given internally are capable of acting, really, as germicides —that is, capable of actually impregnating the blood and tissues of the living body in such a quantity as to destroy existing microphites, whether bacteria proper

micrococcci or bacilli, without at the same time destroying the life of the patient ?

Clinical observations alone led me long since to the conclusion that this question must be answered in the negative. That we have many and valuable remedies capable of being administered in such quantity as to diminish or arrest deteriorative changes in the solids and fluids of the living body, I have no doubt. These are properly called antiseptics or antizymotics. But to destroy the vitality of existing bacteria, either as spores or fully developed germs, requires a far more active or concentrated remedy. One of the most valuable additions to our knowledge of this branch of the subject has been made during the past year by Dr. G. M. Sternberg, U. S. A., in a well devised and extensive series of experiments, designed for testing the actual germicide powers of a large number of medicinal agents. The results are given in an interesting article in the number of the *American Journal of Medical Sciences* for April, 1883. It appears from his experiments that the three most active germicides at present known are the bichloride of mercury, permanganate of potassium and iodine. The first was efficient in destroying bacteria and micrococci, when used in the proportion of one part to twenty thousand parts of a solution containing the germs; the second required one part to eight hundred and thirty-three; and the third one to five hundred. If, as is estimated by most physiologists, one-eighth of the weight of the living human body consists of blood, an adult weighing one hundred and sixty pounds would require the presence of six or seven grains of the bichloride of mercury to make one part in twenty thousand of his blood; and no less than two hundred and twenty grains of iodine to make one part in five hundred. These figures, founded on Dr. Sternberg's results, are quite sufficient to show that we have no remedies at present which can be safely introduced into the human system in sufficient quantity to act as efficient germicides. Consequently whatever benefit clinical experience may have obtained from the use of remedial agents given internally, must have been conferred by some other process than that of destroying bacterial organisms.

It will be remembered that one of the virtues attributed to alcohol as an internal remedy, by several recent writers, is its germicide power. Dr. Formad, especially, placed much emphasis upon this property of alcohol as a remedy in the treatment of malignant diphtheria, recommending it in large and frequently repeated doses. But Dr. Sternberg's experiments show that one of the most easily destroyed germs, the micrococcus of pus, required the presence of twenty per cent. of alcohol for its destruction, while the bacteria termo survived immersion in a solution of 95 per cent. alcohol twenty-four hours. It will be seen that the amount required to be present in the blood of a patient weighing 160 pounds, to destroy those germs most susceptible to its influence, would be about four pounds, or more than a quart of alcohol. This is certainly a much larger quantity than the most enthusiastic advocate of its use would deem it safe to administer. And I may add, as a clinical fact, that I have recently had the privilege of seeing several severe cases of diphtheria under treatment with very liberal doses of whisky and brandy, without the slightest beneficial effect.

IMPROVEMENT IN THE TREATMRNT OF INDIVIDUAL DISEASES.

The medical periodicals during the past year have, as usual, contained many paragraphs stating the results of the use of particular remedies in one or more cases of disease; but they have generally been either some application of a well-known remedy to the relief of a particular symptom, or the number of cases treated has been too limited to afford a basis for reliable conclusions. Therefore, I will not occupy your time with any compilation of suggestions and items that are already accessible to you in the pages of almost every medical periodical you choose to take.

Perhaps the most important improvements made in the treatment of acute general diseases during the past year, consist in the continued decline in the use of alcoholic remedies and of heroic doses of antipyretics, on the one hand, and a gradual return to the use of mild evacuants, alteratives or antiseptics, sedatives, and an occasional venesection. It is true, that the resumption of the use of some of our oldest and most efficient alteratives—as mercury and iodine, and their preparations—is prompted by the prevalent germ theories, on account of their supposed germicide powers; and, as I have stated in another part of this report, there is great danger that, under this idea, their use being aimed, not at the correction of morbid molecular changes in the blood and structures of the body, but at the destruction of some supposed army of microphytes, or germs, will be pushed to an injurious excess, as has already been done with carbolic acid, iodoform, etc., in surgical practice.

The radical error in the therapeutics of the present time, is the effort to cure disease by directing remedies too exclusively against some one of its prominent symptoms—as in combating the high temperature of fever by antipyretics, cardiac weakness by alcoholics —or against the supposed cause, as in the use of so-called germicides. There appears to be a tendency to forget that disease is an unnatural or morbid condition of the properties and molecular movements of the solids and fluids of the living body, or some part thereof; and, when once established, always tends to pass through certain stages of progress or changes, either to health or destruction, even though its efficient cause may have ceased to act. Of course, in the management of disease, it is always important to suspend the further action of its cause or causes; but it is equally desirable to so select and adjust our remedies as to correct the morbid condition of the properties and movements themselves, and thereby prevent the suspension of important functions, or the permanent deterioration of structures. The ideas I wish to convey are well illustrated in the history of the management of typhoid fever. During the last twenty years, two prominent symptoms of the disease have engrossed the larger part of the physician's attention, namely, cardiac weakness and continued high temperature. To counteract the first and prevent

the patient from dying by asthenia, the treatment came, finally, to consist almost exclusively of an abundant supply of nourishment, and an equally abundant supply of alcoholic liquors, to strengthen the heart. But as the disease involved such changes in the properties of the tissues and the molecular movements constituting assimilation and nutrition, that only a moderate portion of the food taken could be properly appropriated, while the excess only fermented, and added to the tympanitis and intestinal discharge; and as the cardiac weakness resulted partly from the impaired nervous sensibility, and partly from fatty or molecular degeneration of its muscular structure, the anæsthetic effects of the alcohol still further impaired vaso-motor sensibility, and encouraged the molecular degeneration, and, consequently, the death-rate soon reached one in five.

Turning from this to the other symptom—that is, high temperature—and, while endeavoring to directly combat it by the cold bath or pack, and other antipyretics, omitting a large part of the alcohol and some of the excess of food, the death rate was reduced to one in ten or fifteen.

And yet, clinical observation is constantly showing that a treatment consisting of a careful adjustment of the quantity and quality of the nourishment to the capacity of the digestive organs to appropriate it, the use of such general alterants as are calculated to sustain the properties of the tissues, and check the tendency to fatty degenerations, and such anodynes as may control local irritations or excesses, the death rate need not be higher than one in twenty-five or thirty, without a drop of alcholics, or any other antipyretic than such sponging of the surface as is grateful to the patient.

In a clinical lecture in the medical wards of the Mercy Hospital, given in January, 1882, I made the following statements in regard to the use of iodine, as a general alterant, in the treatment of typhoid fever:

"The last time I took you to the bedside of typhoid fever patients I called your attention to the effects of iodine, which I had then commenced giving, with the hope that it might be found capable of exerting more nearly the actual alterant and antisepic influence needed, than any of the remedies hitherto used in such cases. Since then I have continued to use the remedy in all the well marked cases of typhoid coming under my supervision, both in the hospital and private practice. Without counting the case before us to-day, which is yet under treatment, the whole number of well marked cases in which the iodine was given as the leading remedy, is fourteen. Seven of these cases occurred in private practice, and the other seven were treated in these wards. Of the seven cases treated outside of the hospital, five came under my care during the first three days afler the patients took to their beds; the other two not until the first half of the second week. Of those treated in the hospital, two were admitted on the third day of the fever, two on the fifth and sixth days, and the remaining three between the seventh and tenth after the commencement of the disease. You will note that nine of the fourteen cases were brought under treatment during the first week after the onset of the disease, and the other five not until the first half of the second week. The treatment in all these cases consisted in the administration of from 12 to 15 minims of the following solution of iodine:

R	Iodinii	0.5 grams.....	grs viii
	Potassii iodidi.....	2.0 grams.....	" xxx
	Aquæ distillatæ..	45.0 cc.....	℥jss

These doses were generally diluted with 30 cc. or two tablespoonfuls of sweetened water, and repeated evey four hours for the first three or four days, and then every six hours until indications of convalescence appeared. Whenever the intestinal evacuations became too frequent and thin, a teaspoonful of the ordinary turpentine and laudanum emulsion was given between the doses of iodine. When the temperature rose to 40° C. (104° F.), and the skin dry, the patients were frequently sponged with cold water. Two of the seven treated in private practice took two grains of sulphate of quinia three times a day during the last week of their progress. Nearly all of the seven treated in the hospital wards took small quantities of the mineral acids largely diluted with water during the earlier part of their treatment, and small doses of quinine three or four times in the twenty-four hours during the latter part. All the fourteen were carfully nourished by the faithful giving of milk, wheat-flour and milk-gruel and beef-tea at regular intervals.

"No alcoholic liquors, either fermented or distilled, were given to any of these patients during any part of their treatment. Of the nine cases in which the treatment was commenced during the first week after the patients took to their beds, four convalesced between the twelfth and fourteenth days; three between the fourteenth and seventeenth, and two between the seventeenth and nineteenth. Of the five cases in which the treatment was not commenced until the first half of the second week of the progress, three convalesced between the eighteenth and twenty-first days, and the other two between the twenty-first and the twenty-fifth. No one of the fourteen suffered a relapse, and no case terminated fatally."

During the eighteen months that have intervened since that clinic, there have come under my supervision forty additional cases of typhoid fever, twenty-five of which were in the hospital, and fifteen in private practice. All of these were subjected to the course of treatment just detailed. Of those treated in the hospital, *ten* were admitted during the last half of the first week after confinement to bed, and fifteen not until the middle of the second week. Of the fifteen treated in private practice, all came under my care during some part of the first week after taking their beds. Of these, all recovered in periods varying from twelve to twenty days. Of those treated in the hospital, all who were admitted during the first week recovered. Of those admitted later, one was complicated with broncho-pneumonia, and ultimately died from œdema of the larnyx, after tracheotomy; and another was complicated with symptoms of unusual cerebral hyperæmia, and died during the second week of treatment. The remain-

ing twenty-three recovered in periods varying from fourteen to thirty days.

You will see that the whole number thus far treated with iodine, as a general alterant, under my own care, is fifty-four; of whom two died, or one in twenty-seven. The general character of the cases included in this list was of full average severity, as a large part of them occurred during the unusually severe prevalence of typhoid fever in the last half of 1881 and the first half of 1882. It was very evident that the iodine, in every case in which its use was commenced early, exerted a decidedly beneficial effect, in lessening all the phenomena of the general disease and in shortening its duration. But when commenced at any time after the end of the first week of the patient's confinement, the effects were less marked, though still of some value.

As additional evidence, showing the long-prevalent idea, inculcated in nearly all our modern practical works, concerning the necessity of alcoholic remedies in the treatment of typhoid fever, to be erroneous, I may cite you to an article in the *Archives of Medicine*, Vol. IX, No. 2, April 1883, by Dr. A. W. Nelson, of New London, Conn., in which he gives twenty-eight successive cases of well-marked typhoid fever, treated chiefly with moderate doses of tincture of veratrum viride during the whole course of the disease, rest, and a judicious regulation of diet, and without a single death. Yet alcoholic remedies of any kind were given in only *three* of the cases. In one of these a little brandy or sherry was given on only two days. In another, a small quantity of brandy was given on five days; and in the third, whisky was given, with milk, during ten days of the treatment, the case running a more protracted course than any other one in the list.

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PREVALENCE OF EPIDEMICS.

The collection of information regarding the prevalence of epidemic diseases in different parts of the State, during the past year, was kindly undertaken by my colleagues on the committee, Drs. B. M. Griffith, of Springfield, and J. F. Todd, of Chicago. The results of their diligent inquiries I present in the following short communications:

"W. J. Chenoweth, M.D., of Decatur, Ill., says: During the past fall and winter we have had an epidemic of scarlet fever of so mild a character as not to demand treatment. When called on to prescribe we have advised inunction of lard and confinement indoors, with the liberty of the house. There has been but a single death from the disease so far as we know, and that was from suppuration in the middle ear, and retro-pharyngeal abscess, some two weeks after the rash had disappeared.

"Diptheria has prevailed extensively. But few cases have died—none where the deposit was confined to tonsils and fauces. We are using a gargle of warm water and salt, or chlorate of potash, and giving quinine and whisky internally; but have no confidence whatever in any specific treatment. Mrs. ——, of Decatur, had a severe attack of nasal diphtheria, which was followed by a general paresis and a condition similar to *delirium tremens*, which lasted for about two months, when convalesence was finally pronounced, and health established in about six months. When at her worst she imagined that her body was covered with vermin; that loathsome reptiles crawled up her throat and out of her mouth; that her bed was filled with beasts of every imaginable size and shape, rolling over each other ceaselessly; her best friends held high positions in government, or were plotting to injure other friends. After trying other remedies, we found that four grains of quinine and one grain of extract cannabis indica, given from four to six hours apart, controlled these hallucinations, and gave relief to the formication and pain. So marked were the effects of the drugs that her nurse learned how to time the doses with considerable accuracy. Neither medicine seemed to act alone.

"There have been a few cases of whooping cough, but it has not yet assumed an epidemic form.

"About the middle of December we began to witness cases of a disease which has since assumed an epidemic form. The prominent symptoms are, suppression of urine; extreme nausea; constipation, with a paroxysm of fever at night. Albumen in the urine has not been constant. The disease has not proved fatal, and has usually yielded, after four or five days, to mild purgatives and hot water packs.

"Articular rheumatism has prevailed extensively. At first we gave salicylic acid, but found that no cures followed. We then resorted to quinine, opium and purgatives, with better effect. We now give wine of colchicum seed, in teaspoonful doses, until it vomits, purges, and sweats—and feel satisfied that the cures are more prompt and more certain. The disease yields readily as soon as free catharsis or sweating occurs, and in many of the cases the patient is entirely well from an apparently severe attack in a week or less."

J. M. Henry, M.D., Rockford, Ill., says: "In reply to your questions on postal of March 5, concerning diseases in my vicinity, would say: We had last summer an epidemic form of dysentery, extending over several weeks. Some of the cases were attended with severe congestion of mucous membrane, of the colon and rectum. A few of the cases ended fatally, but a great majority terminated in recovery. Nothing very peculiar as to its character or treatment. Our treatment in a majority of cases consisted in giving saline laxatives or castor oil, sometimes preceded by small doses of mercurials; after which we used ipecac and opium, in large doses, combined with subnitrate bismuth, to control the tormina and tenesmus. In nearly all the cases, we found it necessary to give sulph. quinine, to neutralize malaria, which was present. We used it in three to five-grain doses, every three hours. In cases where we found much tenesmus, we used starch water and laudanum or morphine. We tried large doses of ipecac repeatedly, without success; could not effect what is ascribed to it by some authors.

"We had, during the fall, considerable whooping cough, which was not attended with any peculiarity, but ran the usual course, and called for but little treatment. The prevailing fevers have been of the malarial character, requiring quinine or cinchonidia,

sufficient to produce cinchonism. We have had very little purely typhoid fever here during the last year. Its place has been taken by what we (for want of a better name) call typho-malarial fever. It begins with remissions and exacerbations, resembling remittent fever, but not yielding to quinine. Assumes a continuous form, and requires careful watching, not too much medication, and early support. I find some very obstinate cases of third-day ague, which required the continued use of quinine, combined with some alterative, to eradicate. I have been using, with success, quinine and iron, alternated with tincture of iodine in such cases.

"We have had less pneumonia to treat during the past winter than usual. Nothing peculiar in character of the cases I have seen; nothing new in way of treatment. We have had less sickness in our vicinity for the past year than for the year previous thereto."

H. H. Littlefield, M.D., Beardstown, Ill., says: "In response to your circular, I have to say that no epidemic disease has prevailed in this locality during the past year; but a nervous disturbance has been a prominent symptom, in connection with or attending many of our fevers, tending to paralysis or congestion of, or upon, the brain. The old "nervous fevers" seem to be returning upon the people, with partial palsy."

"Cephas Park, M.D., Oquawka, Ill., says: Henderson county for the past year has not been visited with any epidemic disease from March 1, 1882, to March 1, 1883, but parotitis, which is very prevalent in this vicinity and in places in different parts of the county. It is universal, almost, in every family that has not had it. Its character for severity is unusual, especially among males. Where metastasis takes place, so far it has been invariably about twenty-four hours before the parotid becomes sore or any swelling takes place. In many cases they are affected all over, and but very little swelling or soreness of the gland. Complain of great muscular pains in arms, legs and body, with an intolerable thirst and complete loss of appetite. This condition lasts from two to six days, and generally results in metastasis to testicle. Very slight cerebral disturbance; nothing more than slight delirium when the fever runs high, lasting but a few hours. Duration, from five to twenty days before the patient is able to leave the house or assume his usual duties. In those whose testicles become involved, about the subsidence of the swelling and a general letting up of the disease, they are affected with considerable nervous prostration. The pulse becomes slow and weak; frequent sighing; anxious looks in some, of impending danger—all of which leaves upon recovery. This epidemic commenced in February, and is still in full blast. The month of February, and this month so far, has been cold and changeable, which has probably been the cause of its severity. Have been more particular in describing this epidemic, as it is the first for parotitis that I ever witnessed, and I have been in practice for thirty years. Mumps used to be considered a trifling matter, both by medical men and the general public. With those who have them and those who have not had them, in this vicinity mumps are looked upon as a matter of great dread.

"The general health of our county has been good for the three years past. No enteric fever. Bilious, and bilious remittent and intermittent fevers are all the types. With some of our profession, a few days of bilious, remitting fever are diagnosed as typhoid fever. You may get reports from other parts of the county that typhoid has prevailed. If so, you will understand where our difference lies."

C. A. Palmer, M.D., Princeton, Ill., says: "Yours of March 1st received. In reply, I would briefly say that during last July and August we had a large run of dysentery, generally easily controlled. During the fall, a large amount of malarious complaints, which continued until as late as December. A general run of measles during the cold weather, complicated with pneumonia, many cases proving fatal, as was the result in quite a number of cases of lobar pneumonia during the cold weather.

"During the past six weeks we have had a peculiar endemic, that I have given no name to, as I could not exactly find one to fit. Probably fifteen per cent. of the inhabitants suffered from it. The patient was generally taken with a chill, which, in many cases, was repeated several times. Pretty high fever (temperature from 102° to 104°); headache; dumpishness; heavy coated tongue; very severe pain and soreness of the muscles, especially those in the back of the neck, and back generally; urine very scanty, and loaded with triple phosphates. The course was generally about a week—some recovering in three days, some in four weeks. If a case ran one week without improvement, it generally assumed a typhoid character. The treatment found most beneficial was a combination of salicylate of soda, tincture gelseminum, and fluid extract phytolacca decandra."

In regard to Chicago and its vicinity, I can report the prevalence of no well-marked epidemic disease during the past year. Typhoid fever, diphtheria, scarlet fever, pneumonia and cerebro-spinal meningitis have all prevailed to some extent. The general character of the cases of diphtheria and scarlatina has been mild, though some cases of both have presented a malignant aspect. The number of cases and deaths from typhoid fever, though above the usual average for a number of years, is below that of the previous year; while that of pneumonia has been decidedly increased. The relative prevalence and special characteristics of this latter disease was the subject of a short paper that I recentiy presented to the Chicago Medical Society, and which was published in the April number of the Chicago *Medical Journal and Examiner*, from which I copy as follows:

"In regard to the special characteristics of the cases of pneumonia which have occurred in this city the past year, I am not, perhaps, as well able to judge as many of you, my opportunities for observation having been limited mostly to hospital and consultation cases. Such observations as I have made have led me to think the great majority of cases were accompanied by the dullness of expression, softness of pulse, mental wandering, dark color of the bloody sputa, and occasional looseness of the bowels, that would

require classing them as typhoid in their grade and tendencies.

"In some of the cases coming under my observation, the cerebral symptoms were unusually prominent, and in two or three cases they were manifest in an unusual manner. The first symptoms were very severe pain in head, most severe in the occipital region, with great restlessness and anxiety, hurried breathing, and only little elevation of temperature. After about twenty-four hours the pain drifted to the lower part of one side of the chest, extremely acute, causing the respiration to be short or stifled, very frequent, and pulse sharp and quick; but the closest examination detected neither the friction of the first stage of pleurisy, nor the crepitant râle of pneumonia; nor the dullness on percussion of the second stage of either. After the pain in the side and other symptoms mentioned, with temporaay feeling of sinking, had continued for nearly forty-eight hours, the pains ceased, the mind became calm, but the pulse and respiration continued short and frequent, like one weary from physical exertion, and giving exaggerated or puerile respiratory murmur, but no râles or dullness over any part of the chest, and no expectoration. During the next twenty-four hours, however, the patient became gradually more dull or drowsy, the respiration shorter, with first crepitant râle over the right side of the chest, which gave place in less than eight hours to submucous râle, some bloody expectoration, and marked dullness on percussion, with a weak and frequent pulse. In less than twenty-four hours after the first indications of pneumonic exudation, the whole of the right, and the lower part of the left, lung were completely filled with the exudative material, and the patient died.

"Another of this class was marked by a decidedly hysterical order of nervous symptoms; and after suffering excruciating pain, vacillating from the lower half of the left side of the chest to the head, often for several days, without developing any physical signs of either pulmonary or cardiac disease, there supervened well-marked symptoms of pneumonia, limited to the lower part of the left lung, quickly followed by endocarditis. These symptoms had progressed only about twenty-four hours, when the patient was seized suddenly with some convulsive movements, and shrieking, as if from intense pain. In this emergency a physician was called in, who administered morphine, both by the mouth and hypodermically. The patient soon fell into a sleep, from which she could be partially aroused six or eight hours later, but lapsed into stupor again, and died about twelve hours after the convulsion. In several other cases, the cerebral symptoms came early, and presented the delirium analogous to that often present in the more active grade of typhoid fever. During its continuance, the respiratory movements became less and less efficient; the moist râles more prominent; the pulse soft, weak and frequent; the extremities cool, and skin generally relaxed and wet with perspiration.

"In all these cases, the urine was scanty, and deficient in the chlorides, and was sometimes voided with difficulty. One of these patients died at the end of the first week after the attack, another on the eleventh day, and the rest recovered, in times varying from nine to twenty-one days. All the fatal cases manifesting unusual cerebral symptoms occurred in private families, in which no post-mortem examinations could be obtained. Those coming under my own observation were in the south half of the West Division of the city; and it may be proper to remark that cases of cerebro-spinal meningitis were occurring with unusual frequency coincidently in the same part of the city.

"With the exception of the class of cases I have just been describing, the general character of the symptoms in the pneumonic attacks of the past year in this city has been such as to indicate a decided typhoid or asthenic grade of morbid action. In only a few instances has the fever in the early stage exhibited such a degree of periodicity as to indicate the presence of a distinct malarious fever.

"In regard to the treatment of pneumonia, I will detain you for only a few words concerning the more important items or questions that the subject suggests. The three principal sources of danger to life from acute pneumonic inflammation are, first, the extent and intensity of the vascular engorgment in the first stage of the inflammatory process.

"When the disease attacks the greater part of both lungs simultaneously, constituting full double pneumonia, as it occasionally does, both in children and adults, the compression of the alveoli or air cells from the over distention of the network of capillaries surrounding them may diminish the amount of air received to such a degree as to prevent the oxygenation and decarbonization of the blood. The respirations become hurried, panting and unsteady; the pulse feeble and frequent, while the heart at first beats excitedly, but soon gives indications of weakness and unsteadiness; the mind at first excited and anxious, soon becomes dull, and in some cases incoherent, while the whole external surface, including especially the face, neck and trunk of the body, appears first congested, then mottled with purplish spots, and finally cyanosed with cold extremities, entire collapse and death. Such cases in which the fatal results is from apnœa, or the direct exclusion of air, are of rare occurrence—not more than five or six having come under my own observation in a period of forty-five years.

"The second, and much more frequent source of danger to the life of the patient, is the amount of the exudation into the lung tissue and alveoli during the second stage in the progress of the disease. The exudation exerts a two-fold influence, namely, by depleting or actually diminishing the amount of blood in circulation, and by diminishing the oxygenation and decarbonization of the blood from the exclusion of air from a large proportion of the alveoli of the inflamed part of the lung. With from one to three pounds of the elements of blood taken out of the circulation in the form of exudative material, and solidified in the alveoli and interstitial spaces of the lung structure, thereby excluding an equal bulk of air, you will readily see how a strong sedative or depressing effect is produced on the functions of both respiration and circulation, and why the cardiac force

should be impaired, even to a dangerous degree, in the early part of the second stage.

"The third source of danger is from the extent of purulent degeneration of the exudate, causing grey hepatization or diffuse suppuration instead of resolution, and progressive exhaustion of flesh and strength until death results from asthenia. It is thus evident that the cardiac weakness in the different forms, or rather stages of pneumonia, which nearly all writers of the present time mention as the chief source of danger, and on which they found their use of particular remedies, is only a symptom or effect, resulting in the first and second stages from the sedative effect of imperfectly arterialized blood, and in the third stage chiefly from the extent of the suppurative process in the inflamed structures.

"If these views concerning the actual pathological conditions that may endanger the life of the patient are correct, the objects most necessary to accomplish by treatment become obvious and well defined namely, first, to limit the vascular fullness or accumulation of blood in the vessels of the inflamed part and lessen the morbid excitability of the texture in the first stage; by which we shall prevent a dangerous degree of direct compression of the air cells in double pneumonia, and most efficiently limit the amount of exudation which is to constitute the chief source of danger in the second stage.

"There are three practicable methods by which the quantity of blood in a part may be diminished. First, by abstracting part of the blood, as by venesection, local bleeding and other evacuants; second, by diminishing the force and frequency of the heart's action by cardiac sedatives; third, by increasing the tone or contraction of the smaller vessels of the part, through the agency of the vasomotor nerves.

"That a prompt free bleeding in the first stages of active pneumonia is capable of lessening the fullness of the pulmonary vessels and relieving the pressure on the alveoli in a marked degree, I have demonstrated so many times as to have no possible doubt of its reality. It is equally true that such relief will, in a large proportion of the cases, prove temporary, if relied upon alone; but if followed by the prompt and judicious use of such cardiac sedatives, coupled with mild anodynes, as will lessen the force and frequency of the cardiac action in the more sthenic cases, and by efficient doses of such remedies as promote an increase of the tone or contraction of the pulmonary vessels in the malarial and asthenic cases, the advantage gained by the bleeding will be perpetuated, thereby rendering the amount of exudation and red hepitazation to constitute the second stage much less, and insuring an earlier and more perfect recovery. It is true that in all the milder more limited cases of unilateral pneumonia the venesection may be dispensed with, even in the active or sthenic type of the disease. In such the cardiac sedatives during the first stage, accompanied and followed by a combination of anodyne and expectorant remedies, with rest and proper nursing, is all the treatment required. But it is equally true that, in the more severe cases of this type, the omission of the bleeding at the proper moment greatly increases the danger of unfavorable progress, and has in times past been the occasion of many fatal results. When the pneumonic inflammation occurs in persons whose blood and tissues have been under the habitual influence of malaria, the effect of quinine in from five to ten-grain doses, in restoring the tone of the pulmonary vessels and repressing the general febrile symptoms in the first stage, is in most cases prompt and efficient. I have seen some cases of this variety completely arrested within the first forty-eight hours after the initial chill, by taking five grains of sulphate of quinia with one of calomel and one of pulverized opium every three hours the first day, and every six hours the second. After the latter a mild laxative to move the bowels, and three grains of quinine three times a day for four days, was all the treatment required. In all ordinary cases occurring under malarious influences, the prompt and judicious use of quinine may take the place of bloodletting in the first stage of disease. But when the the attack is severe, involving a large portion of one lung or portions of both lungs, and the patient comes under observation within twelve hours after the chill, a bleeding of from twelve to twenty ounces will render the action of efficient doses of quinine and opium more prompt and certainly beneficial than it would be without such loss of blood. When pneumonia occurs in the midst of sanitary conditions, favoring the prevalence of typhoid and typhus fevers, our reliance for diminishing the vascular engorgement of the first stage must be mainly on the use of quinine, ergotine, and sponging the surface with cool water, or covering the whole chest with emolliment poultices.

"I have called attention thus fully to the treatment of the first stage of pneumonia, and the different agents that may be employed for accomplishing the same general object (relief of the vascular engorgement of the inflamed structure), and their adaptation to the treatment of cases occurring under different ætiological conditions, because it is only by acting in this first stage promptly and judiciously, that we can materially limit the amount of exudation which is to follow, and determine the danger or safety to the subsequent stages of each case. I had intended to allude to two or three other items of importance in the treatment of the second and third stages of the disease, but I have already occupied too much of your time, and will defer them until another opportunity offers."

HYGIENE OF LOW DIET.

BY GUSTAVUS SCOTT FRANKLIN, A.M. M.D., FELLOW AMERICAN ACADEMY OF MEDICINE.

[Read before the Ross County, Ohio, Medical Society.]

In certain diseased conditions of the human body both theoretical and practical knowledge teach us that the ordinary food of a healthy person is inappropriate, oftentimes very harmful. The results of modern physiological investigation, supplementing and confirming, in scientific manner, the clinical ex-

perience of numberless acute and observing physicians have made plain to every medical student of the present day, that when the digestive functions are not in fair working order the amount and quality of the food to be taken should be a matter of careful consideration.

Modern physiology tells us that in all acute diseases when the pulse is high and the temperature increased, the digestive apparatus is not in a proper condition to work up and to assimilate ordinary food; that all the digestive fluids—the bile, the gastric, the pancreatic, and the intestinal juices—are much diminished in quantity and much altered in quality, that food, if not digested and absorbed, is worse than useless because it quickly decomposes in a feverish stomach, and the irritating products of such decomposition are capable of increasing fever and general distress. Long before these facts were demonstrated as a matter of science, Hippocrates recognized them clinically and did not deem it unnecessary or undignified to teach posterity in voluminous words how to make properly his favorite barley ptisan. Most of this clinical knowledge was, of course, purely epirical until Dr. Beaumont demonstrated upon the person of Alexis St. Martin, and Dr. Schmidt upon Caroline Kutt, many of the physiological principles which govern the scientific practice of the present day. Dr. Beaumont saw and exhibited to others the moist velvety surface of the living, healthy stomach, and the quick and plentiful response of gastric juice on introducing food. He also demonstrated the dry, glazed and turgescent mucous membrane of a stomach suffering from the effects of fever and the poor digestion of food with little or no normal gastric juice to work it up and prepare it for assimilation. He also found that very thin and watery foods were absorbed by simple endosmosis into the blood vessels of the alimentary canal. This exact and visible demonstration of facts, long before accepted empirically, is only too seldom made the basis of therapeutical food-administration at the present day, and even the well educated physicians present will not, I hope, consider me presumptuous in calling their attention to the subject.

The experience of Hippocrates and his successors, and the more exact and definite experience gained in hospitals where trained nurses could guarantee the exact carrying out of all instructions, could report symptoms precisely as they arise, and thus the physician could be better assured of his facts, has led to a therapeutical division of foods into at least four classes. In American hospitals these classes are generally called: (1) full diet; (2) half diet; (3) low, fever or spoon diet; (4) special diet. Full diet is given to those patients who are entirely free from fever, having normal pulse and temperature and who show by a vigorous appetite and a ready, painless digestion that the system demands and is able to care for something similar to the ordinary food of a healthy man. Half diet is ordered for those who are recently convalescent, free from fever, having a normal pulse and more hunger than the sparer diet will satisfy, but whose digestion is not thought vigorous enough to manage full diet. Low fever or spoon diet is ordered for those whose feverish temperature, frequent pulse, loaded tongue, dry mouth and skin, irritable stomach show their inability to digest and absorb anything that cannot readily be taken into circulation through the veins of the stomach by osmosis. Special diet is ordered by the attending physician when he considers it necessary to tickle the palate of the patient or to meet some special indication.

The composition of low diet, which is the present subject of consideration, includes such thin and easily absorbed foods as may not in any way excite or distress the stomach when it is almost if not quite unable to digest anything. The rule to regulate our advice should be—the higher the fever, the thinner and more bland the food. Food and drink together, given frequently and according to the apparent necessities of the system, is thus secured. Among such foods may be named toast-water, rice-water, barley-water, gum-water, wine wheys, as the thinnest, most easily absorbed, least likely to distress the stomach, or to increase fever, and yet nourishing enough for use during a short period. If fever is not very high, or prostration, as evidenced by feeble pulse and loss of strength, be noticeable, then gruels, preparations of milk, beef-tea, mutton broths, cream soup, egg soup, wine soup, egg nogg, and other similar nutritive and sustaining foods, may be appropriate. When the fever is past, with but little likelihood of a relapse, thicker and more nourishing foods may be allowed cautiously.

Just here let it be observed, that the caprices and fancies of the sick-room are out of place, and should be courteously but firmly discouraged when the illness is of an acute and serious character. This caution is even more applicable to food than to medicine, since every good-hearted neighbor may be unwittingly working to defeat the best devised schemes as to proper nutrition. It should be the duty of the attending physician to explain his wishes thoroughly, to give explicit orders and instructions, and to see that his directions are carried out as exactly as possible. This can easily be done in well-regulated hospitals, with their corps of well-trained nurses—such nurses as we hope to see more frequently hereafter in private practice.

Within the range of foods mentioned above there is a remarkable field for the exercise of sound judgment and a scientific pathology. Certain articles of food being better adapted to certain conditions, should most assuredly be assigned to those conditions when it is possible. In my experience, a full, quick pulse, high temperature, loaded tongue and irritable stomach, is preferably fed by well made barley-water, which is nutritive, laxative and diuretic. If the patient cannot take the barley-water, either from caprice, or from natural disgust, or from want of will-power, or because it is badly prepared, try the toast-water, which is bland, unirritating and nutritive; or the rice-water, which is nutritive and slightly astringent; or the gum-water, which is demulcent and nutritive; or the wine wheys, which are nutritive, stimulant and sudorific. Just as soon as the temperature reduces and the pulse falls, especially if prostration of strength

is apprehended, the sparer diet should be made more nutritive and strengthening. Barley gruel, oatmeal gruel, cornmeal gruel, milk, cream soup, egg soup, beef-tea, mutton broth, egg-nogg, etc., have their proper places and their indications. Increase of fever, pain in the stomach, vomiting, flatulence, and diarrhœa, are finger-posts to warn us that we are on the wrong road; that we had better change the diet as circumstances dictate.

A fair knowledge of food therapeutics can only be acquired after careful investigation into the specific character and value of foods, and when clinical experience confirms the theories we form, the conscientious physician is very apt, like Hippocrates, to become an enthusiast on this subject. I believe my own studies on food dietetics have borne rich fruit in my practice, and I am certainly increasingly fond of informing myself on everything which relates to it. In this line of study we learn how to nourish, and still not to inflame; how to feed the stomach, and yet not to produce an excess of bile; how to supply a demand for strength, and not load up the enfeebled system with irritating detritus; how to feed the patient, and not the fever; in fine, how to restore to health, and not allow either starvation or repletion to snatch a victim from under our very eyes. The clear recognition of the need of our fever patient for demulcents, or for laxatives, or for diuretics, or for sudorifics, or for astringents, or for stimulants and the ability to supply these needs at least approximately by the scientific use of food, leads to great clinical triumphs, and is a source of immense satisfaction. The ideal treatise on this subject is yet to be written, and probably awaits a companion treatise on pathological physiology, which needs another St. Martin and a more highly educated enthusiast than Beaumont to limn its outlines.

PARALYSIS OF THE FACIAL NERVE IN CONNECTION WITH DISEASES OF THE EAR.

BY LAURENCE TURNBULL, M.D., PHILADELPHIA.

[Read before the Section on Ophthalmology, Otology and Laryngology of the American Medical Association, June, 1883.]

Diseases of the ear and their connection with general medicine is a subject of grave importance, and the general practitioner who neglects or omits their study will often fall into serious errors of diagnosis, and of necessity be unsuccessful in treatment.

Acute and chronic disease of the middle ear will give rise to temporary or permanent facial paralysis, alteration in taste or smell, sight, and even gait. False epiliptiform convulsions, hemiplegia and insanity are also due to reflex phenomena, from irritation and compression of the sensory and motor nerves of the ear, or the result of necrosis of portions of the temporal bone. It is now a well recognized fact that pyæmic abscesses in the brain and some forms of rheumatic fever have their starting point in the middle ear.

Paralysis of the parts supplied by the facial nerve occur and are the result of acute inflammation of the middle ear, followed by accumulated secretions in the fallopian canal, eustachian tubes, or necrosis of the mastoid cells.

A number of cases of facial paralysis have occured in the Aural department of the Jefferson Medical College Hospital, one of which has already been reported in the author's paper[1], and additional cases will be of interest in this connection.

Case I.—The history of the first case I will state briefly. It occured in a woman aged fifty, the subject of a malignant tumor situated in the tympanum, and caused originally by a polypus, which gradually extended, involving the osseous meatus, auditory canal, temporal bone, and passing out through the auricle, until it formed a large double tumor. The lesion was situated between the petrosal branches of the fifth nerve, involving the chorda tympani. The periostitis caused irritation and pressure, which ultimately involved the brain, and was followed by death.

Case II.—A young woman who was under the care of our colleague, Dr. James C. Wilson, one of the physicians to the Jefferson College Hospital, was refered for our opinion in reference to the condition of the ear.

September 28, 1881, Josie E., aged 24, presented herself with almost entire facial paralysis, caused by exposure and a life of dissipation within a short period.

I found the hearing of one side much impaired; right ear watch not heard on contact; left ear was fair, rather less than normal.

Tuning-fork heard in air on left side; right not even on contact, nor in the air; voice had to be elevated in tone.

Discharge, none. Tinnitus like "waterfall."

External meatus filled with desquamative epithelium.

Mem. tympani, right, thickened and sunken.

Mem. tympani, left. normal with good reflex.

Chronic pharyngitis, tonsils enlarged.

Cause specific inflammations of internal and middle ear; no hereditive deafness. Health has not been good.

Complicative paralysis of the facial nerve implicating chorda-tympani.

Treatment.—Has been taking potassii iodidi, 40 grains three times a day, with use of Faradaic current; removal of desquamative epithelium and opening the eustachian tubes.

After two weeks H D improved to R $\frac{13}{18}$ inches, watch right, and left to 8 feet.

Gradually the paralysis nearly disappeared, with almost entire recovery of hearing, before she left the hospital.

The history of the third case was referred from the eye department for examination by Dr. Wm. S. Little, chief of the opthalmic clinic of the Jefferson College Hospital.

John L. White, aged 17, while passing out of his house was attacked by a drunken sailor who, mis-

[1]Morbid Growths of the Ear and their Treatment, with Illustrative Medical and Surgical Cases, by Laurence Turnbull, of Philadelphia. Tras. International Medical Congress, London. Vol. III., p. 339. (1881.)

taking him for a person against whom he had a grudge, stabbed him in the ear with an oyster knife. It entered the meatus and passed downwards and outwards not dividing the membrana tympani, but a branch of the fifth nerve paralyzing the facial. The young man cannot close the eye of the left side because there is paralysis of the orbicularis palpebrarum. The following is his clinical record, No. 1374 : March 22, 1882.

Richmond. Va., Glass Factory employe—R. E.. $\frac{18}{36}$ L. E., $\frac{18}{36}$; tuning fork in the air ; discharge R., none ; L., muco purulent : pain none ; tinnitus like a "steam engine." Cicatrices in auricle at orifice of meatus of L. side; L. membr. tympani white and irregular; handle prominent; eustachian tubes both open ; chronic pharyngitis ; tonsils normal ; duration, four months ; cause, stabbed by an oyster knife in left ear ; constitution, good ; complications, facial paralysis. Diagnosis, "otitis medie plastica traumatica" L. E.: traumatic division of chorda tympani from punctured wound of meatus in the floor of tympanum ; referred to eye clinic for treatment ; recommended use of galvanic battery and potassi iodidi ; entirely recovered.

As these cases are rather rare forms of facial paralysis, I will dwell upon the subject for a short period. Most of the cases of facial paralysis which are met with are of a peripheral origin, or outside of the brain and constitute what is known as Bell's palsy or paralysis. Such come on suddenly from exposure to cold in a railroad car or when overheated from sitting opposite a crevice in a window or door. This form of paralysis is generally attended by pain, and as the pain is relieved the paralysis shows itself ; the pain, however. is not in the facial nerve, as it is a nerve of motion, but is generally of a rheumatic character and from some irritation of the fifth nerve. To locate the lesion as I have already done, the student must study the anatomy of the nerve. The facial nerve emerges at the lower border of the pons-varolii, near the medulla oblongata. From this origin a large number of fibers may be traced backward into the pons where, on the border of the floor of the fourth ventricle it connects with the same nucleus as the eighth or portio mollis. It is also connected with the nerve by a small fasciculus, the portio inter duram et mollem.

The nerve then passes forwards upon the crus cerebri to the auditory meatus. Entering the first upon the inner side and then upon a groove in the auditory nerve then into the aqueductus Fallopii, and following its tortuous course throughout to its exit at the stylo-mastoid foramen. In this aqueductus it gives off three branches ; the superfacial internal and external petrosal and the chorda tympani. By the superfacial petrosal it is connected with Meckel's ganglion to which it supplies its motor root.

In our first case the paralysis is due to a periostitis affecting the facial nerve and the brain by pressure. In the second, it is the result of syphilitic gummata, and in the third to traumatism.

In the first case, there was profound deafness of that side ; in the second, partial deafness, which was removed by the administration of iodide of potassium and the use of the galvanic current ; and in the last the deafness was very slight. In examining the throat of the third case we find no deviation of the palate or uvula, and that the paralysis is located on this side of the great petrosal nerve. The record of the hearing, you will notice, is almost normal, and the same on both sides. Now, if the lesion were back of the smaller petrosal branch the tensor-tympani would be paralyzed, and the laxator muscle, making the membrane less tense, the hearing would be less acute.

Patients with the lesion located back of this nerve have a very acute or painful sense of hearing, and cannot bear even a loud cough, sneeze or sound without distress

The value of electricity in the treatment of these cases is that it stimulates the muscles, and if the faradic current causes no response we must not give up the case, but employ the galvanic current. In the case of paralysis from traumatism, the faradic current caused muscular contraction, and the young man improved and was able to close the eye April 15, 1882. To apply the current, place one pole, negative, back of the ear, and pass the other pole, positive, over the peripheral distributions of the nerve and obtain contraction of the muscles of the face. The strength of the application should be perceptible, but not painful ; and as long as response be obtained ; even by a faint current, there is hope for improvement.

By way of illustration, I have collected three other cases, all differing from the first reported. I may here state, in passing, that there may occur a form of facial paralysis by simple swelling of the nerve in connection with a chronic suppuration in the middle ear.

In expressing an opinion as to the existence of facial deviation in a doubtful case it must not be lost sight of that an unsymmetrical condition of the mouth may and often does exist in some persons.

Reporter, DR. C. J. BAKER, of Boston.

[Trans. Am. Otological Society, Vol. 2, Part 3, p. 353. 1879.]

No. 1.—Age, 17 ; sex, female ; duration, 12 years ; cause, scarlet fever ; discharge, otorrhœa.

Treatment. — Astringent applications to throat, inflation tonics, syringing and astringent instillations.

Result.— (March) Greatly improved in general condition free from pain or vertigo ; slight discharge from the ear, and polypoid mass diminished in size by the use of alum. Facial paralysis the same. (April 16) Patient placed under Dr. S. G. Webber, of Boston. Faradic reaction entirely gone, and galvanic reaction only in a few muscles about the angle of the mouth. Under continued use of galvanic current, the eye could be closed about three millimeters ; the corrugator muscles had not recovered, and there has been gradual though slight imerovement in voluntary action of the facial muscles.

BY EUGENE FRANKEL.

(Arch. of Otology, Vol. ix, No. iii, p. 211. September, 1880.)

No. 2. Age, 28 ; sex, female ; from infancy ; cause, the absence of a bony wall separating the facial nerve from the drum cavity, caused by a direct compression of this nerve by the plug of inspissated exu-

dation filling that roomy cavity in the petrous bone. (See autopsy). Purulent discharge.

Three days' treatment in hospital; violent headache, for which patient took large dose of morphia; patient died May 5, after gradually increasing coma.

Autopsy.—In brief, cochlea internal meatus and the nerves terminating within were intact; the facial in its course between the two bends of the fallopian canal also offers nothing noteworthy; below the second bend the wall toward the drum cavity is destroyed, and the nerve is separated from the plug of exudation filling the above mentioned cavity, only by a thin mucous membrane.

The first case is interesting in regard to the location of the polypoid growth, in the posterior portion of the tympanic cavity, and that pressure on the mass and upon the region in front of the ear, causing severe vertigo; in connection with the observations of Politzer on the occurrence of openings in, or thinning of the bony wall of the facial canal; in relation, also, to a previous and evidently severe inflammatory process within the tympanic cavity, which may in its results have paved the way for the peculiar symptoms occurring with the latter disease; and also of interest as concerns the degree of recovery attained after a facial paralysis existing for a long period, as shown by the results of the treatment above given by Drs. Blake and Webber. Occurrences of the nature in the first and second cases render intelligible the well established fact that paralysis occurring in the brain, with purulent otites medea, may stop[1] as soon as the cause maintaining the paralysis ceases. Absorption of the masses of exudation compressing the nerve is certainly not impossible, if proper and careful treatment is followed. Green[2] reports a case (death ensued from meningitis), no cerebral abscess present, in which the fallopian canal was likewise open towards the drum cavity, so that the facial nerve appeared covered directly with the swollen mucous membrane.

THE SCIENTIFIC DUTIES OF MEMBERS OF MEDICAL SOCIETIES.

BY H. B. HEMENWAY, M.D., KALAMAZOO, MICH.

[Read before the Kalamazoo District Medical and Surgical Association, Sept. 25, 1883.]

The physician is a scientist and an artist. In but few individuals do we find the two combined in equal proportions. In some the artistic principles are predominant. Others have come to devote nearly their whole attention to the science of physic. The latter form by far the less numerous class. The art and the science are therefore distinct, but they are also intimately connected. The former, as old as the human race probably, is very successful when founded upon scientific principles; while the other had its origin in the art.

We have just said that the art is only successful when it is founded upon scientific principles, and yet it is a well-known fact that the most learned are often very poor practitioners. On the other hand a very ignorant man may be eminently successful, especially in some particular line of cases. This is no refutation, however, of the statement made. Our best instructors in music are very often very ordinary players. They understand what makes sound, music, and discord. They may be thoroughly acquainted with the laws of harmony and with the method of instrumental manufacture in all its minutiæ, but they have not such command of their muscles as to do as well as they know, and in execution frequently the scholar excels the master. The same is true, though probably in a less degree, in our own profession. The empiric is not conversant with the truths upon which his treatment is based. Others have worked out problems to which he remembers the answers. It is a lamentable fact that too often the country physician permits himself to drop into this sort of quackery. He may have had the best of college education. He may have been under the guidance of the most learned of our profession. As he left his *alma mater* he may have done so under the most auspicious circumstances. When he becomes established in practice, however, he has occasion, for example, to dispense his own medicines. For a cathartic he gives the compound cathartic pills of the pharmacopœia. He finds them satisfactory, and buys them by the wholesale rather than make them himself. In the course of time he forgets the exact composition of the pills, but he gives them right along, thinking not so much of the special bearing of each drug upon the case, as that he wants to get a movement of the bowels, and they do the work. He desires something to relieve pain. P. D. & Co.'s chloranodyne is handed him. He tries it, likes it, and adds it to his list. "Tougaline" is his remedy for rheumatic neuralgia, but in nine cases out of ten, the doctor prescribing it cannot tell its composition. If he is reproached with using these ready-made preparations, he will tell you that he has not time to compound drugs. He has tried the combinations and is satisfied with the results. He knows about what cases this or that remedy is good for, and where it will do harm. Why not then designate each combination by a special number? What is there out of the way in a local drug firm scattering hand-bills, which tell the people that Dr. T's No. 29 is a specific for dyspepsia, and No. 45 is highly recommended for "female weakness?" If it is known that Dr. A prescribes "Dyspepsum," why should we object if druggist B recommends "Ingluvin?" The time is not far in the past when a president of our own State Medical Society was sending to lady patients all through the country two kinds of powder, both bi-carbonate of sodium and chloride of ammonium, I think, but one was colored with cochineal. How much worse is that than if he had put them upon the market labeled "Zoa-phora?"

There is another objection to prescribing ready made mixtures. The physician becomes less discriminative in his use of drugs, and is thus led to use more than is necessary. Take the use of Dover's Powders for a "cold." It is by no means impossible that in very many cases the result would be as perfect without the opium, and there would not therefore be the risk of getting the opium habit.

This is not the only danger for the country practitioner finds his time so fully occupied that

his journals do not get the thorough reading which he desires. His cases are so far apart that he can not so easily study them critically as he could if they were side by side in the wards of a hospital. Often he sees a case so seldom, and so short a time that his history of the disease must be imperfect. For a like reason he is very slow to try a new remedy. His work naturally drops into routine. In this malarious region, for example, in a large majority of cases he will give quinine, even though he might not get clear indications of malarial poisoning. What is the result of this line of work?

Years ago, in the clear air of New England, if a patient was found suffering with pneumonia in its earlier stage, his veins were opened and his chance for recovery was good. With the tide of emigration into this State the disciples of Æsculapius came also. Here too pneumonia was found. Of the diagnosis there was no doubt, *ergo* venesection was practiced, but the more blood was extracted the more surely did the patient die. In the one case there was the sthenic type, and by diminishing the amount of blood pressure, the infiltration of lung tissue was diminished, there was less to be absorbed or to break down, and the patient's chances for recovery were better. In the other instance the system had already been depleted by malaria and exposure. In such a case it were clearly better to do nothing at all than to diminish what little strength the patient had left. As a consequence the regular practitioner, relying more upon his former experience with the disease in question than upon his careful study of the case before him, saw his patients laid away for their final rest, while his neighbor was rich in giving directions to "take a teaspoonful out of each glass alternately an hour apart."

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In that humorous historic poem found in "Percy's Reliques," upon "King John and the Abbot of Canterbury," the Abbot's shepherd cheers his master by the question:

* * * * "Did you never heare yet, That a fool he may learne a wisse man witt?" We are also reminded that Sir Walter Scott once said that if after a half hour's conversation with any man, no matter how ignorant, he found that he had learned nothing, he began to suspect that he himself was the greater fool of the two. As scientists we have no right to cast aside and condemn as valueless any system until we have thoroughly examined it and extracted all that has worth.

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A scientist's duty is not done when he carefully collects the ideas and observations of others. He should endeavor to discover new truths. So one of our duties as medical practitioners is to widen the foundation upon which others are to build the future. Our common title indicates this, and it is a very objectionable feature of our American educational scheme that the term "doctor" is here so common and so meaningless. Legally, the man who has registered in our own county as having received his degree after studying twelve weeks in a Chicago homœopathic school has just as much right to be called "doctor" or "teacher" as the venerable president of our American Medical Association, or that surgeon from the City of Brotherly Love who has been honored in old Oxford with the degree of D.C.L. The degree M.D. here gives one little, or no idea of the knowledge which the bearer thereof possesses. It tells nothing of his social or moral standard. It behooves us then, as members of this society, so to conduct ourselves as to raise the professional standing in this community.

This is now the only active medical society in this region of country. To this society every honest physician within its bounds should belong. It ought to be a college of teachers who will exert an influence for good over the whole State. Do you ask "How is this to be accomplished?

In the first place, the Association ought to use every means in its power to uphold and enforce all State and local sanitary laws. It is a well-recognized fact, for example, that the recent law regulating practice in this State is a very weak and defective piece of work. It is a law, however, and every member ought to be a committee of one to see that it is not broken. We should be thankful for small favors, and regard this as but an opening wedge.

Secondly. As a society we ought to have a good professional museum and library for reference. If we are going to allow ourselves to depend upon what we have learned in the past with what little we may pick up, we shall not need a society library. But how many of us have such a large supply of medical literature that we could not soon exhaust it in studying any subject?

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The social gathering is a highly desirable or important feature of our meetings; but for that alone the majority of us cannot afford to give up all other work. Every person who has a privilege has also a duty. There are some men who are perfectly able to work who allow themselves to live at others' expense. There are also in some societies drones, who come regularly to take all they can get of the fruit of other men's work, but never condescend to collect the golden nectar for the common store. In some medical societies, too, there are those who come around when it is convenient, discuss in an off-hand manner the subject under consideration, and perhaps they relate the symptoms of some case under their observation. But the duties of the members of this society do not end there. We ought to have not less than one good, thorough, scientific article read at each meeting. Am I wrong in saying that any man or woman who does not present such a paper as often as once in three years, is not worthy of being a member? I think that is not too strong a statement. Nor ought it to be left to the Secretary to find those to write such articles, especially since some refuse to prepare them when requested. It may be objected that the busy practitioner cannot find the time. Read Samuel Smilie's "Self Help," or Dr. John Brown's "Spare Hours." I remember that when I was in college one or two of the professors were frequently absent when their turn came to lecture. They always had this same excuse of professional business. It was a note-

worthy fact, however, that those who had the largest practice were the most sure to fill their hours.

Would it not elevate the standard of the society to require that every person should read before the Association a paper showing original investigation in some line of professional work before he should be admitted to membership.

What kind of paper do you want? We want them short and clear. Do not repeat in order to make the article longer. Do not try to cover too large a field. Let the article consist of a general review of the subject, followed by a more minute examination of some particular portion, with personal notes, if possible. A compilation and analysis of the thoughts and observations of others is better than nothing at all; but original investigations are the most needed. Distinguish clearly between fact and theory. Such a paper would not only be profitable to the whole society, but it would benefit its writer far more.

As a society we ought to make some original investigations. Take diphtheria one year and require each member to note down and report every case under his observation, telling age, exposure, both as to time and kind, duration of disease, treatment and result; water used; house clean; condition of cellar? The next year we might take pneumonia In such work it would be better to work with the committee of the American Medical Association in accordance with the report of the JOURNAL of August 25.

Our highest duty and privilege is not to deal out. physic, but to preserve the health of the community in which we live. This we must do as public teachers. At the last meeting of the American Medical Association it was recommended that each county society establish a school for nurses. Said school to be conducted as best might suit the circumstances, but probably on the lecture plan. Do we not need such a school here? And would we not be personally benefited?

NOTES ON TRACHEOTOMY, WITH CASES.

BY. W. H. MYER, M.D., FT. WAYNE, IND.

[Read in the Tri-State Medical Society, September, 1883.]

"It is not new facts that avail, but the heat to dissolve everybody's facts."—Emerson.

FOREIGN BODIES IN THE AIR PASSAGES.

I will not discuss the nature of the bodies introduced, how introduced, nor the somptoms developed by their presence; but the prognosis, and that only so far as it refers to the effects.

Of the operation itself I have only this to say: It should not exist—at any rate in the professional mind—as a *dernier resort*, for this would delay the surgical treatment, and the prognosis would be accordingly extremely grave, believing with Trousseau that "there is an imperative duty imposed upon the practitioner of performing tracheotomy as obligatory as tying the carotid artery when that vessel has been wounded, although death quite as often as recovery follows the operation."

I will further urge the propriety of *early* operation in all cases of tracheal obstruction, whether depending upon the presence of foreign bodies or obstruction from disease, differing, as I am well aware, from Dr. Wiest, who recently published an extremely interesting paper on this subject. In it he enunciates the following propositions:

1. "The presence simply of a foreign body in the larynx, trachea or bronchi does not make bronchotomy necessary."

2. "While a foreign body causes no dangerous symptoms, bronchotomy should not be performed."

These inferences were based upon 937 cases; of these 599 were not operated upon, 76.79 per cent. recovered and 23.20 per cent. died. Bronchotomy was performed in 338 cases; 72.48 per cent. recovered and 27.42 per cent. died, leaving in favor of non-interference 4.31 per cent. The fallacy of the argument is apparent when the author attempts to determine in what cases bronchotomy should be performed. This difference furnishes the solution to the results in the tables, and vitiates their value in the light in which the author presented them; for it is evident all the *difficult* cases would be included in the list operated upon, and the less difficult, where spontaneous expulsion took place and caused but little disturbance, these would be found in the class where nature effected the cure.

These tables establish the following conclusions::

1. When foreign bodies were easily expelled—for instance seeds—recoveries took place in a larger per cent. than in the cases subjected to bronchotomy.

2. Only those where spontaneous expulsion had *not* taken place, and the symptoms were urgent—*the bad cases*—those threatened with asphyxia, inflammation and its products, were subjected to bronchotomy.

"Modern medical literature teems with statistics as to the results of tracheotomies. Their study only establishes the conclusion that the operation must be made with reference to the individual case in question, rather than with regard to the proportionate number of recoveries." The above is the language of one of our most enlightened specialists. While I will not attempt to deny the value of statistics, when properly presented, yet in medicine, we know the plainest rules of philosophical investigation have been disregarded. Things have been associated having no necessary relation, and conclusions have been drawn that had but an indifferent foundation in fact. Statistics imply something more than a process in arithmetic. They should be a profound philosophical analysis of materials carefully collected, with an enlightened confidence in their fitness for the purpose in question.

Without the proper regard for the principles here enunciated, they have been singularly barren of results. When the historian, the chemist and the naturalist require unexceptional authority for the statistical facts, and do not hesitate to subject them to a rigid scrutiny, only then do they become of any value. They must be applied only to incidents and events that have an objective existence, and just so far as

[1] Troeltsch, Lehrbuch, p. 413, seg.

[2] "Cases of Fatal Otorrhœa," *Boston Med. and Surg. Jour.*, Nov 30.

they have a subjective relation to the mind, in that degree are they incapable of being statistically expressed, and are mere matters of opinion. The above statements are made in the presence of a complete knowledge of the labors of Zuitlet, the controversy of Sir J. Y. Simpson and Charles D. Meigs, and the publications of the Statistical Society of London.

In reply to the second proposition: "While a foreign body causes no dangerous symptoms, bronchotomy should not be performed," I have only this to say: I believe the prognosis to be materially influenced by the period of sojourn of the foreign body. In delay we incur the hazard of:

Asphyxia.
Chronic inflammation of the larynx and trachea.
Chronic phthisis.
Pulmonary abscess.
Bronchitis, with or without hemoptysis.
Acute phthisis, and even apoplexy.

Furthermore, his proposition is not sustained by the surgical profession.

Sir Benjamin Brodie, speaking of a foreign body remaining in the air passages, says: "The records of surgery furnish abundant evidence that under such circumstances diseases of the lungs, sooner or later, are induced, and the death of the patient invariably ensues."

In the Principles and Practice of Surgery, by Holmes, speaking of treatment, he uses the following language: "When the diagnosis of a foreign body has been made, the surgeon should allow *no delay* in removing it at once."

Prof. S. D. Gross writes as follows: "Having satisfied himself that the foreign body is in the air passages the sooner the surgeon opens the wind pipe the better, for the want of this precaution I have known a number of children lost in the vain hope that extrusion might occur spontaneously." These are the expressed opinions of Morrell McKenzie, Profs. Spence, Chelius, Hamilton, and Pancoast. James T. West, Senior Surgeon Queen's Hospital, Birmingham, thus forcibly pronouncing his views: "The fact that a foreign body does exist in the air passages, no matter whether it causes urgent symptoms or not, calls imperatively for surgical interference for its removal, and the surgeon who defers the operation does so at the risk of leaving the patient in danger of sudden death."

That the non-interference doctrine is not sustained by the medical professlon, I will quote from a lecture delivered by Dr. Johnson, of King's College, London: "A foreign body in the larynx is a continual source of danger; therefore, it should be removed as speedily as possihle, even though the present symptoms may not appear alarming nor very distressing." Sir Thomas Watson says: "When we know that a solid body has been entrapped in the air tubes our business is plain. There is no room in my opinion for hesitation. We must let the substance out through an artificial wicket."

There is no security except in the early performance of tracheotomy. The above opinions are fully sustained by Stokes, Neimeyer, Meigs, Bristow and Trousseau. Among the cases which have come under my observation with foreign bodies in the air passages four children perished without tracheotomy, and in these cases death did occur, after a lapse of four or five days, it was almost instantaneous. You will infer from the foregoing that I am not a believer in spontaneity. In Germany therapentics have been signalized as something hardly better than Nihilism, and the practice of physic not much more than a meditation on death. Let it not be said that we as surgeons will stand idly by and wait for nature to kill or cure our patient when a foreign body is in the air passages. For myself I can boldly affirm that I live to heal; that there are now a few persons in the world who, but for me, would have been amongst the dead, and this remark will apply to every educated practitioner.

This doctrine of spontaneity has its American headquarters in the State of Massachusetts and its capital is Boston, where nature trusting to homœopathy and its kindred delusions have led to well pronounced skepticism in the healing art. If nature is a curer, then are we impostors. Nature pursues her ways with men, regardless of their infirmities. The living man left to his course with reason to guide him, is neither protected from disease nor cured of it when assailed; for him no special force or power is evoked in case of accident. To trust to so called *vis medicatrix naturæ* and neglect or omit scientific methods of cure is to forsake the path of duty and leave to chance that which falls within the domain of reason. Does nature or art cure ovarian dropsy or cataract, or if she *sometimes* cures spontaneously an aneurism or hernia, or a wound? Do we trust to her unaided efforts in any such cases? Neither can we trust to nature to spontaneously expel the foreign body, its exit being opposed by the narrowing of the glottis, which takes place during expiration, especially when this is augmented by the spasm and cough which its presence excites.

"To say nature cures disease is a bad expression if it create in our minds a metaphysical conception, as if there were some personal animus controlling the operation."—Sir William Gull.

Efforts of nature are regarded with watchfulness and doubt. Often must we agree with Professor Houghton, of Dublin, who, when told that the evacuations of cholera are due to an effort of nature to cure the disease, said: "I will tell you what nature wants. She wants to put the man in his coffin, and that's what she succeeds in doing for the most part."

Not long since I read of a learned professor who was desirous to illustrate to his class the curative effects of nature in the disease known as pericarditis. He commenced his learned proof of natural cure by taking the heart of the cured man out of a pickle jar, and by describing from the disorganized specimen how beautifully the heart, by the exudation of lymph, had become adherent everywhere to the pericardial surface, and thus prohibited the pericardium from being filled by water.

In one case only, observed by me was the foreign body expelled spontaneously after remaining four months in the respiratory passages. The sequellæ

were never entirely recovered from, so that my own experience agrees with McLeod's, that "hope of spontaneous expulsion is not great, and may, by its delusive promise, fatally delay operative proceedings."

In 1879 a child aged 4 years was placed under my care for treatment. The history was briefly as follows: Four days previous to the visit a grain of corn passed into the trachea. Tracheotomy was decided upon, but was unavailing, for the grain of corn could not be dislodged by the use of forceps nor by the expulsive effort of the lungs. The autopsy revealed the true condition: Hepatization of a portion of the lung, and the grain of corn firmly impacted in the bronchus. Its enlargement was the result of the imbibition of fluids. Who can doubt the child perished the victim of delay.

In 1872 a boy, æt. 6, was brought to the St. Joseph Hospital in Fort Wayne, with a foreign body in the trachea; no urgent symptoms were present. Twenty-four hours had elapsed since the intrusion. Upon opening the trachea the grain of corn escaped through the opening made, and a rapid recovery was the result.

In the few cases of diphtheritic croup operated upon by me, the result was uniformly fatal; due entirely to the opposition to tracheotomy in the earlier stages, thus depriving them of the only chance of being saved. By this time, you all understand that I am a decided advocate for early interference in all cases of obstruction in the air passages, whether it be a foreign body, croupal or diphtheritic exudation; chronic laryngitis, syphilitic or tubercular; or in paralysis of the arytenoid cartilages.

To illustrate the effect of tracheotomy in laryngeal disease, I will present two cases of perhaps more than ordinary interest.

On the 28th of June, 1883, I was hastily summoned to see Wm. Moyer, the messenger announcing the probability of the death of the patient "ere we could arrive the point proposed." Upon my arrival, I found him insensible; respiration feeble and gasping; surface cold and clammy; pulse almost imperceptible. I was impressed that not one moment was to be lost; that promptness and rapidity were both required, so extreme was the urgency.

With the knife, I made a long incision, extending from the cricoid cartilage almost to the epi-sternal notch. The structures overlying the trachea being divided by a few strokes of the knife, the hæmorrhage was venous; ligation of blood-vessels was out of the question, for the delay would have caused the death of the patient.

Upon reaching the trachea, I did not wait to use the tenaculum or short-tooth forceps, as recommended, but flattened it by pressure with the left index-finger, and thrust the knife boldly into it, dividing three rings. Separating the edges with forceps, the tube was quickly placed in proper position by Dr. Devilbiss. No immediate improvement occurred. The insensibility gradually passed off in three hours.

I found him almost fatally asphyxiated by the carbonized blood, acting upon the exhausted nerve centers as a powerful sedative, failing to arouse the healthy gasping respiration which usually takes place in a less degree of carbonization. He had thus become greatly narcotized, days before my visit.

In this case, then, we witnessed the most serious features of bi-lateral paralysis of the abductors, producing that glottis closure, which gave rise to the peculiar dyspnœa from which he had been suffering long anterior, but in a less degree, than at the time when surgical treatment was necessary to save his life.

It is probable now in this case that the abductor muscles have undergone degenerative change, owing to disease, implicating one or both recurrent nerves, and that the disease is of a specific nature.

On the 1st of July, 1883, I was called in consultation to visit Moses Millman. I found him suffering with deep suppuration of the cellular tissue of the neck, the swelling extending from the sternum to the chin. His illness was of fourteen days duration. I was enabled with the aspirator to make out the diagnosis. The purulent collection was in the immediate vicinity of the trachea. I carried an incision down to this point extending from the cricoid cartilage to the epi-sternal notch. A large amount of dark, highly offensive, fœtid pus made its escape. After the wound was thoroughly washed out, and the pus had made its escape, spasm of the glottis ensued from the presence of pus that had made its way into the pharnyx and the air passages; respiration ceased, as did also pulsations of the heart, and apparently our patient was dead. I opened the trachea, and kept up artificial respiration until at last our patient rallied; after three hours insensibility passed off. He is now almost restored to health after a tedious convalesence. The wound in the trachea was allowed to close up and no tube inserted.

I will not speak of the pathology of cellulitis, or point out its distinctive clinical characteristics as distinguished from erysipelas or diffuse abscess, but will remark that the treatment of cellulitis of the neck is not satisfactory in its results. Bilroth reports no recovery. Jordan was unsuccesstul. Bickersterh has advised an incision on the middle line down to the trachea. In the case just reported the incision was made *into* the trachea, partially owing to the exigency, I admit, and I am able to report favorably.

I would recommend tracheotomy also in chronic thickening of the mucous lining, and in ulceration from the effect of tertiary syphilis or tubercular deposit in the mucous membrane. For if allowed to progress they usually terminate in œdema of the glottis, and cause death, in cases such as above described. Spence strongly urges the operation, informing us that the improvement of the general health is often very marked, and that with a large experience in such cases, the results have been almost uniformly successful.

We may now briefly consider the treatment of chronic laryngeal disease by surgical procedure after medical measures have failed.

In the thesis maintained by Professor Krishaber, of Paris, in the Laryngological Congress at Milan, he says he has employed against laryngeal phthisis all known topical remedies, nitrate of silver, sulphate of

zinc, iodine, chromic acid, scarifications and they have all proved inefficatious. He now uses local applications of narcotic sedatives only. He maintained that the local therapeutical means are without action, and concludes: "We require something else and something better."

Now let me ask is not tracheotomy the remedy? I believe in the future the attention of the profession will be profoundly directed to surgery, instead of to medicine for relief in those cases. The intimate relation between laryngeal disease and pulmonary disease can no longer be doubted; nor the fact that the exciting cause of pneumonia may be the result of blood poisoning through the absorption of morbid products from ulcers in the lyrynx, as when after syphilitic ulceration the lungs are involved and also when laryngeal phthisis is followed by tubercular infiltration of the lungs. These are points worthy the best attention of the physician and surgeon.

The sequence of events are often as follows: The laryngeal disease may be the result of a neglected cold, sore throat and hoarseness remaining for months; cough and mucous expectoration; pain and difficult deglutition. In this early stage of the laryngeal affection there is no evidence of pulmonary disease; the chest movements and the percussion sounds are normal, yet in a large proportion of these cases the physical signs of tubercular deposits are discovered in due time, and is it not the result of pre-existing laryngeal affection? It is not improbable that morbid infecting materials from the ulcers in the larynx may be carried by inspiration into the interior of the lungs, or that the lymphatics may become the poison route? If this theory be true, and I believe it is, may not the question of tracheotomy be entertained even in the earlier stages before the dyspnœa imperatively demands it. This would secure absolute and complete rest to the larynx from the movements of phonation and respiration, and freedom from air currents. The rest thus secured would favor the resolution of the inflammatory process and prevent the absorption of septic materials.

V. 1
1883

IS CONSUMPTION AN INFECTIOUS DISEASE?

BY U. P. STAIR, M.D., OF BLACK EARTH, WIS.

I wish briefly to offer a few observations upon the subject of the nature and origin of tuberculosis.

At the recent meeting of the State Medical Society of Wisconsin, held at Milwaukee, September 4, 5 and 6, a resolution was adopted declaring in substance that we now *know* consumption to be an infectious disease, and that the authority of the State Board of Health should be sought to the end that persons afflicted should be "separated from intimate association with the well in our public institutions." It would seem to me that the passing of this resolution as based upon what we actually know concerning the origin and nature of consumption, is wholly premature. We certainly do *not know* that consumption is an infectious disease. On the contrary, the vast majority of the profession, from actual clinical experience as we believe, are pretty well satisfied that it is not. We do not know positively, that it is a disease capable of being transmitted by heredity, but we believe it is and to say that the profession has, all these years been making a great and fatal mistake in regarding tuberculosis as a hereditary malady, hopelessly deathward in its tendency, and in which there was little to be done but to palliate severe symptoms, is to make a very grave charge indeed. We learn from a report presented to the same society a year ago, by Dr. Senn, of Milwaukee, that this author believes that tuberculosis is both a parasitic and hereditary disease; that the primary condition is inherited and the active disease parasitic.

As to the primary condition of tuberculosis being a result of heredity we believe with Dr. Senn that there can be but little question. The only doubt that remains is as to the origin of the active phenomena manifested. Do these arise from parasitic infection? The affirmative answers given to this question recently no doubt rest very largely upon the late investigations instituted by Dr. Koch, of Berlin. But are we to accept the conclusions of this author as final upon this all-important subject. I think not. Already dissenting voices are heard of such authority that they must receive due attention. Prof. Formad, of the University of Pennsylvania, in a lecture reported in the *Philadelphia Medical Times*, November 18, 1882, declares most emphatically for the non-parasitic origin of tuberculosis. He there says that he pursued essentially the same method of staining in its recent improvements as described by Dr. Koch, and after four years of careful experiment upon animals he arrives at the following conclusions briefly stated thus:

The presence of bacilli is merely accidental wherever found in tuberculosis deposits. "The tuberculous tissue seems to serve merely as a nidus for the growth of the bacillus" and again he says:

"An analysis of Dr. Koch's experiments shows that he has not proved the parasitic nature of phthisis or that there exists a special bacillus tuberculosis, and that the infectiousness of tubercular disease is still *sub judice*."

Prof. Formad regards the primary condition of scrofula and tuberculosis as being one and the same, and that this condition consists in an abnormal "narrowness of the lymph spaces and their partial obliteration by cellular elements," and then he adds: "The natural history of tuberculosis just narrated, is surely against the existence of a special poison, such as now offered by Dr. Koch;" and again: "Koch has discovered that tubercule tissue is always infected by bacilli, and this is correct; but this tubercle tissue is not created on account of, or caused by, the bacilli. These organisms invade the tissue in question solely because it is a culture medium favoring their predominant development."

Then in respect to the special character of the parasite, Prof. Formad further says: "Koch further claims that the bacillus tuberculosis differs from other bacilli morphologically, and in its behavior to staining fluids. We can not confirm this. My assistant, Mr. Bodamer and myself, after prolonged study with instruments as good as those of Koch, and after using

all known methods of staining, have failed so far to see any special features in the bacillus in question which would make it distinct from other bacilli."

It would transcend the limits assigned to this article too far to pursue the interesting investigations of Prof. Formad further, but, it seems to me, enough has been shown to cast serious doubts upon the pathological and microscopical evidence in favor of the parasitic origin of consumption, and if this evidence fails, what is to be said of that afforded by clinical observation. I am well aware that the doctrine is not new. More than fifteen years ago Dr. DeCosta published an article in the *American Journal of the Medical Sciences* suggesting the possibility of the contagiousness of consumption and giving several illustrative cases which seemed to lead to this view. My attention having been thus called to the subject, by careful observation I endeavored to satisfy myself as to whether the claim could possibly be sustained by clinical facts. But thus far I don't remember a single instance where infection, pure and simple, and outside of all hereditary influence, could have borne any part whatever in the origin of this disease, or wherein the disease was produced by infection alone, without the accompanying hereditary taint. I would not venture thus to give the results of my own limited experience, were it not that I feel assured that it is in accord with that of the vast body of my professional brethren. It seems to me, in the face of these considerations, it would not be well for the profession to rush into the grave mistake of asking for legislative authority upon the practical application of a mere theory which a little time and a more extended inquiry may change very materially or dissipate altogether, leaving behind, as a result, humiliation enough, if not absolute hindrance to the advancement of medical science.

Besides, let me add, that to ostracise the unfortunate consumptive from the kindly care and social influence of friends and loved ones, for years it may be, as this doctrine demands, is a matter of very grave import, and should never be attempted for any cause whatever, short of a positive demonstration that justice and the safety of the well absolutely require it.

MEDICAL PROGRESS.

A CASE OF CHYLURIA IN WHICH CASEINE WAS DETECTED IN THE URINE.—The *Moniteur Scientific* for September contains the details of an interesting case of chyluria, by Dr. A. Livson, followed by a minute chemical study of the urine by M. E. Seger, pharmaceutist. The case was that of a woman, native of Normandy, and 27 years of age, unmarried. For some years she had suffered from cardiac troubles, severe neuralgia, shortness of breath and œdema of the legs, there existing insufficiency and disease of the mitral valves. Pulse weak and irregular. The menses formerly free and regular, became irregular, appearing every three months; flow in small quantity and very painful. Palpitation of abdomen showed apparently a body the size of an orange attached to the uterus. The kidneys sensitive to pressure over them and painful; urine red, depositing an abundant red substance, and varying in quantity between 800 and 1200 grammes. These symptoms gradually became aggravated, when suddenly after a violent crisis resembling that of nephritic colic, the patient declared that her abscess had opened and showed her chamber pot containing urine resembling a mixture of bouillon and milk. Microscopical examination determined the presence of fat globules without pus or blood. Chemical examination by heat and nitric acid produced an albuminous precipitate which was so peculiar in its characteristics as to cause M. Seger to submit it to a careful chemical analysis. From this time on the fatty matter continued to be discharged with pain in the kidneys and abdomen, but without any apparent effect on the patient's adipose tissue —milk being almost the only nourishment. In the course of the analysis occasionally a minute clot of the size of a pin's head was found, but never blood in solution, and no filaria were present. Examination of the venous blood showed nothing unusual. To sum up: In lieu of albumen Mr. Seger found caseine in the urine, in which were also present all the elements of milk except sugar. Neither fat nor caseine was present in the blood. For two years the disease did not increase and the general condition was satisfactory. The treatment during that time consisted simply of a milk diet, bleeding at the time of the crisis and the use of potassium bromide.

The record of the case is followed by a careful analysis of the urine showing that the quantity passed in twenty-four hours was 1400 to 1600 cub. centim., the density 1.020, less urea than normal; the quantity of fat eliminated in twenty-four hours is very variable, being between 1 gr. 07 and 7 gr. 54. The quantity of uro-caseine in solution in twenty-four hours varying from 0 gr. 46 to 1 gr. 16.

The term uro-caseine is used from a certain reserve in deciding the question of identity between this substance and the caseine of milk which it resembles so very intimately.

BROMIDE OF POTASSIUM IN THE TREATMENT OF DIABETES.—In the month of August of last year M. Felizet, Hospital Surgeon, presented to the Paris Academy of Medicine, a memoir which caused considerable stir, upon the treatment of diabetis by bromide of potassium. The results as announced were marvelous. Two very marked cases of diabetes were relieved in a few weeks or even in a few days. The Academy appointed M. Dujardin-Beaumetz to experiment thoroughly with the method of M. Felizet. His report has now been presented and is favorable to the method. He accepts fully the numerous successful cases as due to the bromide; 15 cases observed by M. Felizet in his memoir; 14 cases after reading his paper; a number of cases noted by MM. Herard and Dreyfus-Brisac, and finally those of M. Dujardin-Beaumetz himself. The bromide of potassium has not only relieved temporary cases of diabetes which might in time be relieved of themselves, but has equally relieved very decided and inveterate cases.

The reporter found, however, that it was difficult to judge accurately of the value of the bromide as M. Felizet associated with this treatment as much of gymnastic exercise as possible, as well as the use of other agents, as arsenic, iron and chinchona, without paying much attention to the diet. He found that this drug employed habitually to the extent of 4 grammes per day, produced an intellectual depression and a decided prostration of the general forces, which conditions M. Felizet affirms that he effectually overcomes by his gymnastic exercises.

In the discussion which followed, M. Ricord without reserve gave his approval of the treatment. He had treated successfully by its means 8 or 10 cases during the past year. The objectionable symptoms attributed to the bromine could also be accredited to diabetes, which also diminishes the force and produces cutaneous emissions, and the best way of economizing the forces of the patient is to cause as soon as possible a disappearance of the sugar from the urine. Dr. A. Chevallineau who gives us this account in *La France Médicale*, August 30, adds to the preceding his own experience in two cases of temporary diabetes, where the sugar disappeared in one after five days; treatment suspended; return of the sugar; treatment renewed for fifteen days with entire relief; in the other it entirely disappeared in fifteen days. He also gives a case of diabetes of ten years standing, which had been relieved by other treatment so far as to reduce the amount of sugar from 35 grammes to 3 or 4 grammes per liter; a treatment of five weeks caused its entire disappearance. In a case of cataract the urine was entirely relieved of its sugar in about three months, but the cataract was not influenced by it, except that only one eye was affected. On the other hand he cites a case by Dr. Pasteau of a man 65 years of age, affected with double cataract, and passing 175 grammes of sugar per day, upon whom the bromide, continued for three months, produced not the slightest influence.

Anal Tumor of an Erectile Character.—M. Richet in his hospital practice at the Hotel Dieu Paris gives a description (*Gazette Hôpitaux*, Aug. 30) of a case occurring in a young man, who, at 17 years of age, after several days of obstinate constipation, followed by an exersive discharge, found a tumor present in the anal region. From that time each stool was followed by its protrusion, accompanied by a little blood. In the last eighteen months it commenced to protrude independent of the stools, particularly after walking, and to increase considerably in size. At present the least effort causes its protrusion and necessitates an attempt at its reduction. Last year a case somewhat analagous presented itself, but in an older man, and due to a relaxation of the muscular fibers of the sphincter, rendering it unable to retain the hæmorrhoidal tumor. But here there is no relaxation; the sphincter contracts very perceptibly. Upon asking the patient to make a straining effort while inspecting the parts, a little bluish swelling appears at the orifice of the anus, which gradually increases in size, the external projection of which becomes more and more pronounced like an erectile tumor, and the sphincter yields by degrees until the whole tumor passes out. It is as large as a hen's egg, bluish in color, projects between the nates, and shows, upon its mucus surface, a series of tortuous veins which, if ruptured, would give rise to a marked hæmorrhage, being, in fact, an aneurismal venous tumor. Here we have neither a discharge of blood or mucus. It does not belong to what is called the red or the white hæmorrhoidal tumors. It forms a third group. Fortunately the sphincter does not contract upon it or the result might be that of total or partial sphacelus, gangrene, etc. M. Richet proposes to remove it by means of the cauterizing ecraseur process.

On the Heating of Surgical Instruments.—Prof. Leon Tripier (*Lyon Medical*, Aug. 26) gives us his method of preparing surgical instruments by heat for operation. He asserts that instruments, as a rule, are not subjected to a proper degree of heat. Cutting instruments, as an example, are not submitted to the flame and special hæmostatic processes are passed through the flame in an irregular and insufficient manner. He began his experiments with a gas chafing dish, a porcelain capsule filled with oil, in which he placed a bistourie. Between 90° and 100° C. the cement gave way; between 125° and 130° the pins which held the blade and handle together fell out into the vessel. The cutting edge of the blade was found to be as good as ever. Satisfied with this experiment Prof. Tripier has had constructed a brass box 40 centim. long, 27 high and 20 broad, intended to receive oil which can be brought to a given temperature, and in which can be placed the necessary surgical instruments. Under the bath is a burner, supplied with gas and furnished with an Arsonal regulator and a tube *à sauterelle*. The box is divided into seven compartments, differing in size according to the instruments which they are intended to receive. These compartments communicate with each other by means of a double bottom, the upper part of which is pierced with holes so as to allow of an equalizing of heat throughout the mass of oil. The bottom of the compartments intended for saws and amputating knives is provided with layers of cork to prevent the blunting of points and edges against the metalic surface. For small instruments like focreps, bistouries and scissors, he constructs little baskets plaited out of annealed iron wire, which can be placed in the oil. The temperature should be 120° to 130°, to reach which requires about three quarters of an hour. The instruments should remain at least ten minutes, then be placed in the large basin containg a solution of phenic acid 50 to 1,000, which has been heated to 70° or 80°. All instruments used in general operations should receive this bath, and then be placed in the basin for use during the operation. The question of handles becomes important here, and Prof. Tripier first thought of using metal handles, but found them seriously inconvenient, and recommends the English mode of prolonging the metal into handles formed of two lateral portions fastened with pins.

RELIEF OF FŒTED SWEATING FEET BY SUBNITRATE OF BISMUTH.—M. Vieusse (*Gazette Hebdomadaire*) recommends highly the use of this drug in this affection. The fœted sweat follows different forms of affections of the feet, sometimes the derm is naked and exposed from the maceration of the epidermis, and is the seat of severe pain. At others the skin does not seem to be altered at all, while the odor from the sweat is very marked. In either form frictions, with subintrate of bismuth, have been followed with success, by using twenty or thirty grammes of the drug, being careful to rub it well into the interdigital spaces. In most cases its daily use for fifteen days produces perfect relief. The epidermis becomes firmer, and loses its whitish appearance, is less wrinkled and adheres to the subjacent tissue. The secretion diminishes.

SUBCUTANEOUS INJECTIONS OF AMMONIATED MERCURY PEPTONE IN THE TREATMENT OF SYPHILIS.—The 18th volume, 2d series, just received, of the *Société Médicale des Hôpitaux de Paris*, contains a memoir on this subject, by Dr. L. Martineau, in which he details one hundred and eighty cases of syphilis submitted with benefit to this treatment. The use of subcutaneous injections has been employed with greater or less success since 1854, when it was first made use of by Prof. Scarenzio in Italy. Different formulæ were used at various times to prevent pain, abcesses and scars, until Staub, in 1872, used a solution containing the white of egg, with chlorides, forming what he termed the "chloro-albuminate of mercury," as being capable of being absorbed. Disagreeable accidents still ensuing, this mode of treatment fell into disuse in the treatment of syphilis. Bamberger prepared what he called the peptonate of mercury, which was not followed in its use by abcesses or eschars, but which produced pain, nodosities and more or less persistent numbness. Dr. Martineau obtained the services of the pharmaceutist, M. Delpech, who used the dry peptone of M. Catillon, which is exceptionally pure, and made the following combinations: Bichloride of mercury, 18 grammes; peptone, 15 gms.; chloride of amonium, 9 gms.; 1 gramme representing 0 25 centigr. of corrosive sublimate. For injection, ammoniated peptone, 0 gr. 40 centigr.; distilled water, 30 grammes. This solution would give 4 milligrammes of the sublimate to an ordinary hypodermic syringe containing 1 gm., 20 centigr., and will keep well for several days.

Dr. Martineau gradually increased his doses subcutaneously until he reached 5 milligrammes, which he found to be well borne; that the pain was not persistent. A few of his cases complained of its lasting for a day; but in most of them it only continued for an hour in the first injections, afterwards the pain was unimportant; there was no local irritation provided the injection was subcutaneous; that 4 milligramme doses were not followed by any evidences of salivation; no mercurial stomatitis or gastro-intestinal disturbance, and that given in this way the effect was more prompt and rapid than when given by the mouth.

Later in his experiments Dr. Martineau used an injection, which was prepared for him by M. Delpech, as follows:

Peptone, in powder, 9 grammes; chloride of ammonium, 9 grammes; corrosive sublimate, 6 grammes. This was dissolved in glycerine, 72 gm.; distilled water, 24 gm., of which 5 grammes of filtered contained exactly 0.25 centigr. of the sublimate, which in solution with 25 grammes of distilled water, gave to a syringe holding 1 gramme 20., exactly 10 milligrammes of the sublimate, which dose Dr. Martineau used to advantage, but he considers 5 milligrammes as the proper dose. He recommends further that the glycerine solution be prepared only in small quantities and when required for use.

M. Armezzano, by a careful chemical process, which it is not necessary to detail, obtained from the urine of the patients submitted to this treatment the red crystals of the biniodide of mercury, showing that the mercury introduced by injections is eliminated within the first ten days.

Dr. Martineau further cites one case occuring in the practice of another physician, where a patient submitted for six days to internal mercurial treatment became so freely salivated as to prevent all continuance of treatment. These injections were substituted of the strength of 3 to 5 milligr., and to the number of 45, without inducing salivation. The cases cited show a rapid and energetic influence upon a great variety of syphilitic manifestations, as papillary, papulo-hypertrophic, papulo-erosives of the vulva, anus, vagina, uterus, mouth, tongue, and tonsils; cutaneous affections as erythematous, papillary, papulo-squamus, and maculæ; lenticulæ, ulcerated, and tubercular ulcer.

By slight modifications this preparation of mercury can also be used internally. In a group comprising several cases, Dr. Martineau used the following with benefit:

Peptone mercuric ammonias, 1 gm.; glycerine, 50 gm.; distilled water, 200 gm., of which solution a coffeespoonful represented 5 milligr. He gave one to two spoonfuls a dose, mixed with water or milk, producing no nausea, no vomiting, and none of that metallic taste which persists sometimes for hours with other preparations. The urine examined in these last cases showed traces of mercury.

ON SOME POSTEPILEPTIC PHENOMENA.—In a paper read in the Section of Medicine, at the annual meeting of the British Medical Association, at Liverpool, August, 1883, Julius Althaus, M.D., M.R.C.P. LOND., Senior Physician to the Hospital for Epilepsy and Paralysis, Regent's Park, makes the following introductory observations before describing a series of cases:

"I wish to draw attention to certain either acute or chronic alterations of the mental faculties which have fallen under my notice, as direct consequences of epileptic attacks. I shall purposely exclude, in discussing this matter, any cases in which epileptiform seizures took place in consequence of gross or-

ganic lesions, such as tumor of the brain, chronic inflammation of the membranes and the gray surface of that organ, blood poisoning of various kinds, and other diseases in which the convulsive paroxisms were only one symptom amongst many others; and I shall confine myself strictly to the consideration of those cases in which epilepsy occurred as a true neurosis, that still mysterious and unexplained functional disease of the gray matter of the brain, which is possibly owing to some kind of imperfect nutrition, but certainly not to any such structural alterations as would reveal themselves to our present means of research.

"The paper is based on an analysis of the cases of 250 epileptic patients which have been under my care, in private and hospital practice, during a period of six years. Amongst these cases there were 89, or 35.6 per cent., in which no perceptible temporary or permanent alteration in the mental condition, which could be ascribed to the epilepsy, was to be ascertained; while in 161 cases, or 64.4 per cent., such alterations did occur. Of the 89 cases which escaped mental deterioration, 61, or 68.5 per cent., were instances of nocturnal epilepsy; while 28, or 31.4 per cent., attacks took place in the daytime. All, however, which escaped, were cases of typical convulsive attacks: while, in all cases of loss of consciousness without convulsion, or *petit mal*, and epileptic vertigo or automatism, a more or less permanent mental alteration was induced. Amongst the 161 cases which were followed by mind-affection, there were:

123 cases (or 76.5 per cent.) of typical convulsive attacks;
26 cases (or 16.1 per cent.) of *petit mal;* and
12 cases (or 7.4 per cent.) of epileptic automatism.

"Amongst these patients there were 91 males, or 56.5 per cent., and 70 females, or 43.5 per cent. The ages of the whole series varied from 5 to 62, and when these were distributed over decades, it appeared that the decade from 5 to 15 was at the bottom of the list with 10.5 per cent.; while that between 15 and 25 headed the list with 24 per cent., the other decades being very nearly even, with a medium of about 16 per cent. The hereditary influence was marked in 66 cases, or 40.9 per cent. The nature of other predisposing or exciting causes, as far as they could be ascertained, did not appear to have exerted any special influence, since they were much of the same kind as in those cases in which the mind was not affected. I will, in passing, remark that I have excluded from the present considerations those cases which were apparently owing to injury to the head, syphilis, and masturbation, as these are of a complex character.

The cases, therefore, which form the groundwork of this paper, are only such where epilepsy was the primary event, and where some mental disturbance was observed subsequently to, and as a direct consequence of, the attack. There are two forms of this disturbance, viz.: an acute one, where mental symptoms occur soon after attacks and disappear again after a certain time; and a chronic form, in which there is a gradual and permanent loss of mental power consequent upon attacks.

The characteristic feature of the acute form of postepileptic mental affection is its periodicity. Identical, or at least highly similar, symptoms are seen to occur year after year, and gradually become intensified, unless they be checked by active treatment. They do not always occur immediately after attacks, but occasionally a day or two afterward, and last a variable time, but rarely longer than a week. After such an attack is over, the patient has mostly no recollection whatever of what has occurred."—*British Medical Jonrnal.*

THE COMPARATINE ADVANTAGES OF SCRAPING AND SCARIFICATION IN THE TREATMENT OF LUPUS VULGARIS.—In a paper read in the Section of Surgery, at the Annual Meeting of the British Medical Association in Liverpool, August, 1883, by Malcolm Morris, F.R.C.S.Ed., Surgeon to the Skin Department of St. Mary's Hospital, Mr. Morris speaks highly in favor of free erosion by means of a blunt spoon. He continues: "The plan I adopted was, with a few minor modifications, identical with that originated by Volkmann in 1870. With a large spoon, all scabs are thoroughly removed, and with them the great bulk of the superficial deposit; and after drying the surface, the minute nodules which are deeply lodged in pockets of the corium, are dug out with smaller and pointed scoops. The margins are also vigorously scraped. The spoon should be applied till the whole of the soft, friable lupus tissue has been removed, and only the firm resistance of the sound parts is met with. Though the greater portion of the disease may be removed at one operation, some of the smaller, deep-seated nodules which have escaped will reappear in the scar, and require subsequent treatment. After the healing of the wound produced by the operation, a scar with more or less loss of substance is left.

"The great advantage of this treatment is the rapidity with which a cure can be obtained; and if a large surface be affected, in a position in which a scar is of no consequence from its appearance, it is, on the whole, the best that can be recommended. On the face, and other exposed parts, the appearance of the cicatrix is a matter of some importance, and it is here that the other mode of operation, scarification, yields better results. I would here mention, that in lupus of the mucous membrane I have had the most satisfactory results from scraping.

The method of multiple punctures, as suggested by Veiel, of Cannstatt, in 1871, is effective but tedious in application, and I have preferred to practice linear scarification with a narrow, triangular-pointed knife, as used by Professor Vidal, of St. Louis Hospital, Paris. The little operation is performed by pressing the sharp point of the knife, which should be he held like a pen, on the sound skin at the edge of the lupus-growth, and quickly drawing it across the mass to the healthy skin on the opposite side. In its course it should penetrate the entire thickness of the morbid nodule, dividing at its base the fibrous bundles of the corium. Other incisions, parallel to to this, should be made as close as possible, and these should be crossed by others at right angles. The

bleeding, which is slight, is easily checked by a compress of cotton-wool, and the little cuts heal rapidly. After a week's interval, the operation should be repeated. Occasionally two or three operations are all that is needed, but more often it is necessary to repeat them several times. The scar left is smooth, supple, and usually distinguishable from the healthy skin only by its paler color, being little, if at all, depressed.

In the severer ulcerating forms of lupus, especially in lupus exedens, the one alluded to in the opening of the paper, scarification, to be of service, must be used more boldly. We have sometimes to plunge the whole blade of the knife into the mass for a depth of one-half to three-quarters of an inch, to incise it in all directions, leaving the part in a condition literally of mince-meat, but without removing any portion of the tissue. This plan, I can state from my own personal experience, is most effective, and fully merits the favorable recommendation of Vidal.

In comparing scraping and scarification, the former—though it has the advantage of rapidity—in the character of its scar is much inferior to the latter. Scraping is, after all, a destructive method, similar to, though milder than the older forms of treatment, as it mechanically removes the diseased material, whereas scarification is essentially conservative in its action. The incisions, by cutting off the blood-supply, modify the nutrition of the new growth, and lead to its atrophy with a minimum loss of substance. In addition, in the severe forms of lupus exedens, in which scraping fails, or even aggravates, scarification acts most rapidly and completely. A further, though minor advantage is that scraping, on account of the pain, requires an anæsthetic, which can be dispensed with in scarification.—*British Medical Journal.*

NEW YORK CODE CONTROVERSY.—In a recent number of the *Medical News* the editor finds the present status of the controversy in New York concerning the Code of Ethics as follows:

"The Code controversy in New York has now reached the stage in which argument has ceased, and the strength of the respective parties is being carefully computed prior to the appeal to the ballot in the New York County Society—the birthplace and stronghold of the New Code—on the 29th proximo, and in the State Society next February.

"A poll of the 1661 physicians whose names are in the New York City Medical Register shows that 764 adhere to the National Code, 404 are advocates of the New Code, and 54 of no code. The remainder are uncommitted. In the New York County Society, we are reliably informed, the advocates of the National Code are largely in the majority.

"The canvass of the State, which is still in progress, shows that there are 2,405 physicians who adhere to the National Code, 924 to the New Code, and that there are 215 who advocate having no code.

"These figures are extremely gratifying. They show that the profession of the State has been completely misrepresented in the State Society at its last two meetings, and they unerringly point to the speedy revocation of the New Code."

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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TRAINED NURSES.—It will be remembered by those present at the recent meeting of the American Medical Association in Cleveland, and such others as may have read the full record of proceedings contained in the first number of this journal, that Dr. S. D. Gross, of Philadelphia, offered, and the Association adopted, the followed preamble and resolution:

"WHEREAS, Good nursing is of paramount importance to the comfort of the sick and the restoration of their health, and

"WHEREAS, The subject is one which strongly addresses itself to the common sense and kindly sympathy of every intelligent member of society, therefore,

"*Resolved*, That this Association, fully recognizing the importance of the subject, respectfully recommend the establishment at every county town in our States and Territories, of schools or societies for the efficient training of nurses, male and female, by lectures and practical instruction, to be given by competent medical men, members, if possible, of county societies, either gratuitiously or at such reasonable rates as shall not debar the poor from availing themselves of their benefit."

This action of the Association, prompted by Dr. Gross, has attracted the attention and received the approval of several of the more influential medical journals, and is of sufficient importance to engage the attention of the profession generally. In several of our largest cities there are already regular training schools for nurses in connection with permanent hospitals, in which all the advantages are afforded for making accomplished and reliable nurses. But the benefits of such organized and thorough training schools, etc., and in the nature of things must be

limited to the larger cities. To secure the better training of nurses for the towns and country districts, where they are even more necessary than in the cities, on account of the longer time between the visits of the physician, Dr. Gross, in an article contained in the *Medical News* of September 15, says:

"To educate nurses for the rural districts and villages, all that is necessary is to establish a central office or bureau at every county town in each State and Territory, and to place it under the charge of its medical society, which should elect two, or at most three of its members, to give the necessary instruction. One, for example, might take charge of the various matters comprised under the head of requirements of the sick-room, including hygiene and the nature and preparation of food; another, the mode of examining the patient as to the condition of his tongue, pulse, countenance, skin, temperature, posture, and excretions; the mode of administering medicines, their doses and actions; poisons and their antidotes; while a third might busy himself with surgical, obstetrical, and gynæcological appliances and dressings, including the treatment of hæmorrhage.

"Where no county society exists, the same object may be attained by the banding together of any two or three competent physicians in the place. Notice of the time and place of meeting should of course be given in the public prints, and also by card. A small matriculation fee should be charged, and also, where possible, a small fee for each of the instructors, to assist in defraying expenses. The teaching should be as practical as possible—essentially practical—each pupil being obliged to perform her work in the presence of her instructor, not once or twice, but again and again. Free use should be made of the blackboard. The outfit of such an establishment need not exceed fifty, seventy-five, or at most one hundred dollars. There should be frequent examinations, and at the final one a certificate of competency should be be awarded to the successful candidates.

"If the plan now suggested be faithfully carried out, as I confidently believe it may be, either as here presented or with such modifications, changes, or alterations as circumstances may render necessary, it can not fail to be instrumental in saving many lives, in preventing much suffering, in inspiring hope in the sick, and in imparting confidence to the professional attendant. If this plan succeed, I shall feel that I have accomplished the greatest work of my life.

"To aid the pupil in her efforts at acquiring knowledge, she should avail herself of a proper text-book. Of this class of works I have now six lying upon my table, and, after a careful examination, give the preference, as to completeness, to the Hand-Book of Nursing, published under the direction of the Connecticut Training-school for Nurses. A Manual of Nursing, prepared for the Training-school attached to Bellevue Hospital; Anderson's Lectures on Nursing, and Cullingworth's Manual of Nursing, Medical and Surgical, are also excellent productions, worthy of a place in the library of the nurse and of the the physician. Any of these books may be obtained of Blakiston, Son & Co., 1012 Walnut street, Philadelphia, at one dollar a copy. A Manual for Hospital Nurses has been issued by Mr. Edward J. Domville, of London, and is now in its fourth edition; and there is a brochure, entitled Notes on Fever Nursing, from the pen of Dr. James W. Allan, of Glasgow, reprinted in Philadelphia. Much valuable information will be found in the Notes on Nursing, by Miss Florence Nightingale, published soon after her return from the war in the Crimea, where she earned so much glory by her efforts to assist the sick and wounded."

We would only suggest, in addition to these remarks of Dr. Gross, that on account of the infrequent meetings of the county and district medical societies, the work could be prosecuted with greater advantage by the local medical societies in all of the smaller cities or villages, where members can have ready communication with each other, and where it would be found easy, if desired, to secure the aid of benevolent men and women outside of the profession to organize and render any pecuniary or other material aid that might be found necessary. Will not the local medical societies in such places as Joliet, Aurora, Princeton, Springfield, Bloomington, Jacksonville, Peoria, Rock Island, Quincy, and others in Illinois, and in all similar centers of population in other States, take this subject under serious consideration? It is certainly worthy of their full attention.

Novel Mode of Bleeding.—The latest mode of blood-letting is given in a late number of the *British Medical Journal* by Dr. Charles Coppinger, who relieved a serious cerebral congestion by introducing the aspirator needle into the external jugular vein and abstracting at first four ounces of blood, and half an hour later six ounces more. The patient was a fat and plethoric lady fifty years of age.

The Texas Courier-Record of Medicine.—We have received the first number of this new monthly journal. It is edited with spirit and enterprise by Drs. F. E. Daniel and E. L. Stroud, Fort Worth, Texas.

The American Public Health Association.—We again remind our readers that the next annual meeting of this important national organization will commence on November 13, at Detroit, Michigan, and continue in session several days, during which papers will be read on some very important subjects. A full attendance is expected.

An Unhealthy City.—The annual death-rate in St. Petersburg, Russia, is stated to be 51 per 1,000 of the population, which is more than double the death-rate in the principal cities of this country.

SANITARY CONDITION OF THE SUEZ CANAL.—According to the statements in a recent number of the *Pall Mall Gazette*, the Suez Canal is made the receptacle of the sewage and waste water from the stations and towns along its course. And as the water in the canal is stagnant, being very little moved either by currents or tides, it has become very foul and offensive, and appears to be causing much sickness among those who are either delayed in transit or are residing on its banks. This is not encouraging to those who contemplate traveling in that direction.

THE two most common pathological conditions are inflammations and fevers. The changes that take place in the former have been described minutely and in detail. They were determined by experimental research. Somewhat slowly the more complex phenomena characteristic of fever are being similarly observed, and their significance ascertained. The latest contribution to the experimental study of fever that we have seen, is the work done by Dr. Walter Mendelson in the Physiological Institute of the University of Leipzig[1]. He attempted to determine what influence fever, artificially produced, might have on the size of the kidney. The fluctuations in its size were determined and recorded by the onconometer and onconograph of Roy. The experiments were conducted with care, but a description of the details need not be given here, as it is to the results that we wish to call attention. Any changes that may occur in the size ef the kidney must be due to congestion or depletion in a greater or less degree, therefore the onconograph really recorded in these experiments the vascular condition of the organ. It was found that whether fever was produced by the injection of fever-producing agents into the blood, or by subjecting the animal to a high heat in a close box, there was a progressive diminution in the volume of the organ during the rise of bodily temperature. In other words, as pyrexia increased the kidney became more and more anæmic.

To illustrate: On the onconographic record, the bodily temperature being 38.8° C., there appears a uniformly undulating line. At a temperature of 42° C. the undulations are not so marked, although still quite uniform. At 44° the record shows an almost straight line. The amount of blood lost by the kidney was estimated in each experiment, and varied from 7.88 per cent. to 32.49. It was also found that by severing the nerves connected with the kidney, no change occurred in it during a rise of temperature. Almost no change in the size of the organ occurred, also, when the spinal cord was severed towards the head, although if the sciatic was strongly stimulated a slight contraction might be caused. These nerve lesions were produced in the attempt to ascertain whether the changes were due to peripheral or central irritation. The most conclusive experiment on this point was probably that of heating only the blood that flowed through the carotids into the brain. It was then found that almost immediately a contraction of the kidney occurred, and a rise of general arterial pressure. It was therefore concluded that in all probability the contraction of the blood vessels, and consequent contraction of the kidney, was due to the stimulation of the central nervous system, by the abnormally hot blood circulating through it.

Knowing that the blood-supply to the kidney is diminished, we can more readily than ever understand why the secretion of urine is lessened under the same circumstances. Dr. Mendelson also thinks that the presence of albuminuria in many fevers may be accounted for, by supposing that the anæmia of the kidney causes such changes in the renal epithelium as to permit the passage of albumen from the blood through it. But in many fevers, even when considerably contracted, albumen is not present in the urine. In meningitis and cerebritis it is certainly not commonly found, and yet these diseases are often characterized by high temperatures, especially about and within the head. If albuminuria in fever be due to the renal anæmia alone, we would expect it to be of common occurrence in these diseases, for in these, too, in accordance with Dr. Mendelson's experiments, we would naturally expect a decided anæmia of these organs. Is it not probable that the albuminuria of fevers is to be explained, in part, at least, on the ground of material changes in the blood albumenoids. Recently, Semmola, of the University of Naples, has been experimenting on the artificial production of albuminuria. He finds that an over-supply of readily diffusible albuminoids will cause its appearance in the urine. This, however, does not happen, at least to the same extent, when other forms of albumen are used.

Whether anæmia, and consequently a shrinkage of the kidney, are accepted as present in all fevers, their existence in the acute fevers produced in the laboratory is of interest. May not similar changes take place in other glandular organs, as for instance the pancreas, under the same circumstances, and be the cause of the imperfect digestion, as well as of other symptoms characteristic of fever?

[1] "On the Renal Circulation During Fever," by W. Meudelson, M.D., of New York. *Am. Jour. Med. Sci.*, October, 1883.

BOOK REVIEWS.

THE ESSENTIALS OF PATHOLOGY—BY D. TOD GILLIAM, PHILADELPHIA, P. BLAKISTON & CO.

This is a small book of about 300 pages, in which is compactly stated the generally accepted facts of pathology. Unsettled questions have generaly been avoided, the object not being to supplant the larger works on this subject, but to present the facts of pathology concisely, and in the way which the author's experience has shown him to be best. In most respects the subjects treated of are well described and fairly well illustrated. Two faults may be pointed out in regard to the illustrations. Although they are to be found in other works, and evidently have been copied no mention is made of the fact. There is also nothing to show how many times the specimens from which the cuts were made had been magnified.

The two first chapters are devoted to a general consideration of disease and to normal histology. Under the latter head only the cell and its common properties and functions, together with the intercellular substance, and a few lines descriptive of the structure of tissues in general, are treated of. In the next two chapters is taken up the consideration of constructive and destructive processes in disease. Chapters on infiltration, metamorphosis and death follow. In the four succeeding chapters mechanical and functional derangements, fever, inflammation and tumors are discussed. Several chapters are then devoted to new formations in different tissues. Separate chapters are devoted to the pathological states of the commonest tissues and chief organs.

A POCKET BOOK OF PHYSICAL DIAGNOSIS OF THE HEART AND LUNGS FOR THE STUDENT AND PHYSICIAN. By Dr. Edward T. Bruen. Second Edition. P. Blakiston, Son & Co. Philadelphia.

This is a most excellent book. It treats with fullness sufficient for all ordinary purposes of the physical diagnosis of diseases of the organs of the thoracic cavity. The descriptions of physical signs are clear and their explanation is well given. The few illustrations are of a useful character. A chapter is devoted to the sphygmograph and its relation to heart diseases. The fact that a second edition has been demanded shows that the profession has recognized its good qualitles. Although of a convenient size it deserves a more dignified title than that of a "pocket book."

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Authors and Subjects. Vol. IV. E—Fizes. Washington: Government Printing Office, 1883. 4° [12] 1033 p.p., muslin.

Dr. Billings, in his report of presentation of this volume to Surgeon-General Crane, states that it contains 4,802 authorities, representing 1,926 volumes and 3,885 pamphlets. It also includes 12,361 subject-titles of separate works and pamphlets, and 48,977 titles of articles in periodicals.

The titles in the four volumes now published of the Index Catalogue represent, author titles, 35,431 titles, 24,967 volumes, 27,479 pamphlets; subject titles, 41,483 book titles, 149,737 journal articles, and 4,335 portraits.

This volume is most voluminous in titles on the subjects of the ear, education, eye, and fevers—the latter (fevers) having about 300 pages devoted to it alone.

DOMESTIC CORRESPONDENCE.

CAMBRIDGE, MASS., October 4, 1882.

EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Dear Sir:—In the weekly number of this journal under date of September 22 appears an original article entitled "Epidemic Jaundice Among Children," by Alex. Y. P. Garnett, M.D., Emeritus Professor of Clinical Medicine in the National Medical College, Washington, D. C. After considering the subject at some length the author reverts to the "influence of the nervous sytem as one of the causative agents in the question of jaundice." Here he mentions several factors which he regards as having an important bearing on the etiology and origin of such an epidemic. These for the most part I do not now care to consider, but there is one statement made which deserves at least a passing notice; it is this: "The influence of anger upon the saliva of animals, transforming a harmless secretion into an active poison." Again, the author says, "Evidence is not wanting to prove that even rabies canina has been produced by the bite of an enraged dog which was in all respects healthy." Now, some few years since I was summoned as an expert witness, on both sides, of a case brought before the Supreme court of this State, where a lad died of an undoubted attack of hydrophobia caused by the bite of a dog. The child was bitten some two months previously, and was treated by a physician at the time. The animal alleged to have bitten the boy was produced and exhibited at the court. The dog was sportive or playful, and showed no signs of disease. Scarcely one of the many accomplished physicians called on either side ventured to offer the opinion that a bite of any animal, however enraged, unless at the time affected with rabies, could produce hydrophobia in man, although a great effort was made by learned and astute counsel on the part of plaintiff to show that such a result might follow. The literature of the subject was quite thoroughly considered by the court, as the various experts on either side were not only examined by counsel as to their personal experience and observation of this affection, but also as to their knowledge or acquaintance with the different authors who have written upon the subject of rabies and hydrophobia. The chief justice who presided took great interest in the case, and offered every opportunity for a thorough consideration of the subject. The prosecution appeared to rely largely upon a foot-note which appeared in Fleming's work on rabies and hy-

drophobia, to show that the saliva of the enraged animal, otherwise healthy, could impart hydrophobia in man; but a subsequent work of Fleming touching the same subject seemed wholly to have invalidated that statement. Owing to sickness and death of the senior counsel of the defense the case was dropped indefinitely. Now, what I would like to inquire in view of these facts is, whether the writer of the article referred to, or any one of the readers of your valuable journal has any facts or reliable data (not theories or opinions) tending to show that hydrophobia can be produced in man by the bite of an enraged animal which is in all respects healthy. Very respectfully, AUGUSTUS P. CLARKE, M.D.,

693 Main Street, cor. Bigelow Street.

EDITOR JOURNAL AMERICAN MEDICAL ASSOCIATION:

Having been for twenty-five years a victim of hay-fever, and having been compelled to suffer all the torments of this disease, sitting in a chair for sixteen consecutive nights in order to get a modicum of sleep and rest, and having ransacked the whole literature of hay-fever as known in the English language, as far as I could obtain it, I am, as you may well imagine, much interested in anything that appertains to this inscrutable and abominable disease. No living man, who is not a victim, can appreciate the agony of hay-fever. Allow me to say that so far as twenty-five years can give a man authority to speak, I say that it is my opinion that no remedy has as yet been found; no, not so much as even a palliative for genuine hay-fever. For the last twenty-five years half of the materia medica has either gone through my nose, down my throat, or has been applied externally with this mournful result, *nothing!*

It is my opinion that for the cure of genuine hay-fever, as yet nothing is known. I write thus, as in the last number of the JOURNAL a Dr. Phillips lauds belladonna as a specific. I have tried belladonna to its utmost limit of safety, and either he never saw a genuine case of the disease, or is mistaken somewhere, for allow me to say that so far as my experience goes, nothing can cut short this disease. I have corresponded with half a hundred of victims and tried to learn their treatment, and the most intelligent all agree that they have to fight the thing through or leave in time to escape its attacks. My own opinion is that those who can cure hay-fever have never seen a genuine case of it, but have mistaken it for a case of common cold. C. HIXSON, M.D.

O'Fallon, Ill.

WHO DOES THE STEALING?

CHICAGO., October 6, 1883.

TO THE EDITOR: Dr. Casebeer, in introducing the subject of his interesting paper, mentions that Prof. A. A. Smith lectured at Bellevue Hospital Medical College on "The frequent repetition of doses of medicine." The lecture referred to, though embracing the consideration of what is purely within the domain of scientific medicine, has been made to serve the purpose of a certain class of irregulars, in their endeavor to prove that their "school" is correct, in all things, and that the "old school" has at last accepted Homœopathy, pure and simple. As an instance of this tendency on the part of irregulars to belittle the profession, in the estimation of the outside world, I quote the following, clipped from the *Microcosm*, a well known scientific journal, and widely circulated among teachers and clergymen.

"*To the Editor:* In the April number of your valuable journal, Dr. G. A. Stuart says: 'The regular profession throughout the whole civilized world challenge him as they have challenged Hahneman, and any of his disciples to his proofs (referring to the only true law of therapeutics, as discovered by Hahneman). Isn't it rather late in the day to utter such stuff, even by a so-called regular, when they are every day stealing the remedies of homœopathy, as witness the lecture delivered recently at Bellevue College by Dr. A. A. Smith? Homœopathists are the only physicians who claim to administer medicine according to its well known law of cure, and not even faith is needed to demonstrate its truth.

"A. P. BOWIE, M.D."

It is by such apparently logical arguments as the above that the world at large is influenced by irregulars, from the quack who patents his wisdom to those who "glory in their conflict with dogma." Indeed such arguments would seem to prevail in some of our medical societies, where strong position is at times taken against a practitioner who perhaps unintentionally violates the code, though the ones who accuse him are only too ready to affiliate with men who, kicked out of the back door of the profession, ride into favor upon the triumphal car of some popular "pathy" and are eagerly invited to be "one of us." If homœopathy, or any other irregular practice, can grow into favor in a few years, surely there is little need that our young men should pursue long courses of study at reputable colleges. If the proper thing is "to consort with the pathists," students of medicine may as well pass through a term at some happy-go-easy institution, rest quietly until an anti-code committee reports successfully, and then claim position with the elect.

If those who in professional circles advocate the claims of homœopathy, be sincere in the performance of a supposed duty, we should pity and seek to enlighten them. If, on the contrary, they are proven to be merely the advocates of expediency, we should despise them as they are known to be despised by those with whom they would affiliate. That there are many who "know not what they do," I may mention that when the subject of appointing a committee on revision of the code was brought up before the St. Louis Medical Society, one or the oldest members stated that he had frequently responded to the request of a lady practitioner for consultation, though the lady a graduate of an irregular school. He qualified his assertion—in response to my inquiry—by saying that he "did not stay long at a time."

At that meeting I took the position that homœopathy, as such, had no place in American practice; that he who gathered shekels under a confessedly false name was not sincere—which is a milder word

than dishonest. I need not tell the "Nestor of American medicine" that Hahnemann, though making it the corner-stone of his system, did not discover the law of *similia*. Every scholar knows that 2,000 years before Hahnemann, Hippocrates advised and practiced the use of contraries and similars, and proved their results upon the living body. Haller also "proved" the action of various remedies, and is credited by Hahnemann with this half of the "law." But singular to relate, the "Messiah of Medicine" is strangely silent as to Paracelsus, who, two centuries before his time, announced to the world the doctrine of similars, using the legend, now so popular, "*similia similibus curantur*" (vide Ed. Geneva, 1658). The same "Monarch of Medicine" in his "*Fragmenta Medicina*" (page 168, et seq.), heads a lengthy paragraph with these words. "*Simile, similis eura; non contrarium*," and then goes on to prove this, by the varied actions of mercury, sulphur, and salt.

So much for the vaunted discovery of the "law." Now, as to its permanency. Before Hahnemann died his system had ceased to bind his own disciples, despite the fact that he had pronounced his "law" unchangeable, and declared anathema against what he called "the practitioners of the new mongrel system, a mixture of homœopathic and allopathic processes." Thirty-five years later, Dr. Wyld, vice president of the British Homœopathic Society, wrote to Dr. W. B. Richardson (*London Lancet*, 1877,) as follows: "First, that the views of Hahnemann are often extreme and incorrect. Second, that Hippocrates was right, when he said that some diseases can be treated by similars and some by contraries; therefore it is unwise and incorrect to assume the title of homœopathist. Third, although many believe that the action of the infinitesimal in nature can be demonstrated, its use in medicine is practically, by a large number in this country, all but abandoned."

The "Great Master" ignored scientific medicine and surgery while theorizing to such an extent as to leave no record of the cases treated by him. Yet every year the leading practitioners of his system flock to the European clinics and to "regular" schools in America to perfect themselves in rational treatment. If then we are to credit homœopathy with an existence separate and apart from Hahnemann, its prophet, where is the "law" and where the "stealing" by Professor Smith? The fact is incontrovertible that in America, as well as in England, the mixed system, so much abhorred by Hahnemann, is the general practice of his followers. That the "law" itself is not infallible is evidenced by the fact that the itch—whose spiritual "manifestation was the cause of mania, gout, and cancer,—is due to a very material parasite, which a short treatment, with a very common agent," potentially sends to its long home. Lead palsy, as well as consumption, and many other ills that flesh is heir to, are due to microscopically demonstrable materiality, the spiritual factor in all such cases being manifested after death has claimed the case.

As to the choice of remedies the true physician is not bound by any so-called law, but is free to select that which is best for his patient. If a homœopath finds a remedy that I think well of I will use it, so if a negro should discover a medicinal plant I would use it—as I have already used one medicinal product of the plantation. The physician gives as freely as he takes, else the homœopath's occupation would be gone, and when it comes to "stealing" Prof. Smith can retaliate with a vengeance.

Respectfully yours,

P. H. CRONIN, PH.B., A.M., M.D.

49 N. State street.

FOREIGN CORRESPONDENCE.

PARIS, Sept. 25, 1883.

The annual meeting of the French Association for the Advancement of Science was this year held at Rouen, the medical section of which was presided over by Dr. Jules Rochard, member of the Paris Academy of Medicine and Inspector General of Hospitals in the Marine Department. Some of the papers that were read on the occasion were most interesting, but even of these I can only select a few, and send you but brief extracts.

Dr. Gallard, a well-known gynæcologist, made a communication on the physiology of menstruation—a subject, he said, that required to be revised, as there were two currents of opinion entertained in the profession as to its mechanism, some admitting the correlation that existed between the menstrual flow of blood and ovulation in the light of cause and effect, whilst others looked upon the presence of the two phenomena as a simple coincidence, even although they may occur simultaneously. After having gone over the history of the question from the days of Hippocrates to the present time, he referred to the writings of Negrier, who was the first to point out the correlation that existed between menstruation and ovulation. According to this author the latter always accompanied the former, and, in support of his theory, he mentioned the fact that when the sexual or conceiving period of a woman's life ends, menstruation ceases, the inference therefore is that the one is the consequence of the other. The adversaries of this theory declare that there is no necessary correlation between the two acts as menstruation had taken place in women who were deprived of ovaries, whether congenitally or by operation as in ovariotomy. To which Dr. Gallard replied that he never met with a case of congenital absence of both ovaries in which the menses took place, and if after ovariotomy there have been recurrences of uterine hæmorrhage, yet even these, though they may be frequent, do not constitute menstruation properly so called, as there is no periodicty in the flow of blood which does not last so long, and the quantity of the latter is by no means what is observed in the normal function. Dr. Gallard then referred to the experience of Dr. Séan, the eminent surgeon and ovariotomist, who remarked that he has known uterine hæmorrhages to occur even after other capital operations besides ovariotomy, whatever the organ or region operated on. Dr. Gallard further

remarked that in some of the cases in which menstruation took place after ovariotomy there was no doubt that the operation was imperfectly performed, that is to say, there was a small portion of one or both ovaries left behind, which, even if it be a single lobule, is sufficient to perpetuate the function of menstruation.

Owing to the extensive employment of hypodermic injections in general practice, and the critical remarks called forth in consequence, Dr. Voisin thought proper to defend this method of treatment against the attacks leveled against it, as he considered it excellent, and that it was rendered dangerous only in ignorant hands and by its abuse. Dr. Voisin, who is physician to the Salpetrière Asylum for female lunatics, has had great experience with this method, and wished to impress upon the meeting the great advantage it posessed over all other methods, particularly in the treatment of insane and nervous subjects. The effect obtained was powerful, precise, and offered no inconvenience, provided the necessary precautions were observed and the injections be performed by the medical man himself or any other competent person, but the patient should on no account be allowed to do it himself or herself, as it leads to abuse, particularly when narcotics or anodynes are prescribed.

DeBurot, of Rochefort, made some observations on intermittent fevers as they reign in that seaport town. He found that intermittent fever, notwithstanding the continual turning up of the soil, has considerably diminished within the last fourteen years, but pulmonary phthisis has become more frequent. The granular form was observed even among confirmed malarious subjects, in whom the spleen was considerably enlarged, and this condition co-existed with extensive cavities in the lungs. Typhoid fever had not made its appearance for some time, at least epidemically, though it is always more or less prevalent in the town. Pneumonia of the typhoid form has also been rather prevalent. The author of these observations intended to prove that intermittent fever, tuberculosis and typhoid fever were not incompatible with one another.

At the close of the meeting a proposition was made to the effect that measures should be taken for the constitution of a board of health on the basis of those existing in most civilized countries, which should be competent to decide all matters connected with public hygiene, instead of having them, as at present, under the control of several departments. The expediency of such a measure had already been officially represented several times by the Academy of Medicine and other learned bodies, but the Government have hitherto shown a deaf ear. The consequence is, questions of such vital importance as that of public sanitation are still left in the hands of the Municipal Council, the Prefect of the Seine, the Prefect of Police and the Minister of the Interior, who surely are no more competent to deal with such matters than medical men would be to direct the movements of a fleet.

The next annual meeting of the Association is to be held at Blois, in August, 1884, and Prof. Verneuil has been elected president.

Intelligence has been received of the death of M. Thuillier, one of the members of the French Medical Mission referred to in my letter of the 8th of August, which was sent out to Egypt at the instigation of M. Pasteur to investigate the nature of the cholera that has been raging in that country for nearly three months. M. Thuillier was not a medical man, as he was supposed to have been, but a doctor of sciences. He nevertheless showed great aptitude for biological researches, which attracted the notice of M. Pasteur, who employed him in his laboratory. The medical mission, composed of four members, left Paris about six weeks ago, and on their arrival in Egypt they dispersed themselves in different quarters to carry on their researches independently of one another. M. Thuillier contracted the disease in a hospital and succumbed in a few hours at the early age of twenty-seven, and, it may be said, a victim to duty in the midst of the deepest regret, not only by all who knew him, but his death is considered a great loss to science in general, and to biological science in particular.

A. B.

NECROLOGY.

SLAUGHTER, ALFRED E., M.D., was born at Orange Co. Court House, Va., August 24, 1839, died of consumption, at his home in Gordonsville, Va., Jan. 11, 1883. Alfred E. Slaughter, M.D., was the son of Dr. T. T. Slaughter, of Orange Co., Va.; educated at Col. Haines' school, Buckingham Co., Va.; took his degree in medicine in 1860, at the University of Virginia, and commenced his professional life at Gordonsville in 1861, but was soon called to help the army of Northern Virginia, where he remained until the "fateful day at Appomattox" (except when he was detached in charge of some of the hospitals), when he returned home and resumed his practice, which he continued until near the time of his death.

An appreciative and lengthy report on his professional life and character was prepared shortly after his death by the Peadmont Medical Association. This, with a series of resolutions, was printed in the Virginia *Medical Monthly* and by the newspapers of Orange Co.

F. D. CUNNINGHAM, M. D.,
Virginia.

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT UNITED STATES ARMY, FROM SEPT. 28, 1883, TO OCT. 5, 1883.

Tilton, H. R., Major and Surgeon: assigned to duty as Post Surgeon at Fort Wayne, Michigan (Par. 4, S. O. 183, Department of the East, September 28, 1883).

Brechemin, Louis, Captain and Assistant Surgeon: relieved from duty at Fort Columbus, N. Y., and assigned to duty at Fort Wadsworth, N. Y. (Par. 5, S. O. 183, Department of the East, September 28, 1883.)